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The Review of Metaphysics

A PHILOSOPHICAL QUARTERLY

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PHILOSOPHY AND HISTORY

I

The problem of history and the problem of writing history have come to interpenetrate so closely that the "task of the historian" is the customary, almost the instinctive, point of departure for the theoretical analysis of history. This attempt to project the philosophical problem of history from the ground of the theoretical problems of historiography is the essence of the broad movement called "historicism" and reaches its most complete expression in "absolute historicism" in which philosophy is resolved without residue into the methodology of historiography. From the point of view of the euristic conditions of a philosophical problem of history no point of departure could be less promising. The historistic program, as a matter of fact, constitutes a fallacy of perspective which, persisted in, must render the formulation, to say nothing of the resolution, of a genuine philosophical problem of history impossible.

The theoretical problems of historiography derive chiefly from an ambiguity at the heart of the historian's task; historiography is uncertain as to its own theoretical character, that is, its character and status as a mode of knowing. On the one hand, historiography is oriented wholly toward the concrete, toward its rich and inexhaustible determination in quality;

moreover, the concrete toward which it is oriented, is not statuesque, substantively plural and fixed, but fluid, dynamic, continuous. Such concretion can be fixed and rendered for expression and communication only in narration, in images, therefore; as a consequence, written history appears in its own self-consciousness, that is to historiography, most immediately as art. The subsumption of history under the general concept of art as a form of knowing, however, is attended by insuperable difficulties. Chief among these is the fact that the concrete to which history, that is, written history, is addressed is the existent concrete; but the images of art, patently, are unsusceptible of the character of existence, save obliquely and typically. The forms of art, its images, are structures of pure quality, devoid of any determination of real and unreal, of any determination of existence, while the images of history are images of the real. But the character of existence cannot be intrinsic to any image, it cannot be simply a quality among qualities; it is rather the determination of quality to actuality which it does not possess simply as quality. The character of existence cannot consequently pertain to the images of history as images but must accede to them by a further theoretical act beyond that by which the image is evoked. This further act can only be logical. Existence must enjoy the status of logical predicate, not of esthetic quality.

This consideration alters profoundly history's own conception of its theoretical character. If the characteristic of the image of history, that is, existence, pertains to it not as image, but in virtue of a further theoretical, logical act, history must be considered in its most intimate character to be, not art, but science. Its constitutive principle must be a logical act, a judgment, and its operative principle, the concept, specifically, the "concept" of existence, which will appear in its constitutive judgment as logical predicate, and the subject of which must be the historical image. The intimate structure of history, consequently, is logical. Yet insuperable difficulties would seem to attend this conclusion also. On the one hand the status of

existence as a logical predicate is highly suspect, while on the other the character of its logical reference the image is obscure. The appearance of existence as logical predicate would seem to involve its characterization as an essence, for logical predication consists precisely in the essential characterization of images. The reduction of existence to the state of an essence, however, nullifies the whole force of the logical persuasion of history; for essence assigns to the image merely a further formal characterization, and not actuality of its constitutive qualitative structure. The logical reference of existence to the image would consequently be purely formal and extrinsic, and not an intrinsic determination of the image to its actuality such as is demanded by the characteristic nature of the historical concrete.

This tension within historiography, this bivalence, as it were, of written history toward concretion in the image on the one hand and on the other toward the abstraction and formality of the logical act or judgment; this intimately contradictory aspiration toward the status at once of art and of science, is the root of all its theoretical difficulties. Programatically, it can surrender neither of these prerogatives, yet logically cannot retain both. It can surrender its claim to logical structure only at the price of retirement from the theatre of the sciences into that realm of pure quality, innocent of any distinction of real and unreal, of any intimate character of existence, which would seem to be the realm of art. It can relinquish its claim to the status of art only at the price of the surrender of its precious and characteristic concretion, of falling into a dualism of allegory, or finally of retreating into a geometric method in which its only distinction from the abstraction of mathematics would be the peculiar ineptitude of its symbols.

The deliverance of historiography from this theoretical quandary does not appear imminent, nor would its occurrence justify the program of historicism, that is, furnish an adequate basis for the projection of the philosophical problem of history.

Rather the whole historiographic problem, when made the focus of the theoretical analysis of history, distorts and obscures the structure of the philosophical problem and must continue to do so until reassigned to the periphery of that analysis. Two indications of this fact, deriving directly from the theoretical quandary already noted, are especially persuasive. The first is the terminal estheticism which historiography can accept with serenity as proper to written history but which has no place in the philosophical concept of history. This estheticism is accepted by Croce, for example, when he writes without ambiguity that written history is contemplation. The basis of the contemplative theory of written history is, obviously, its necessary orientation toward the image. Its inconsonance with a philosophical concept of history is patent. History in its actuality is the theatre not of contemplation but of action; its intimate structure, consequently, must be not esthetic but ethical. Somewhere within the ethical structure of history the contemplative moment of historiography must indeed find its place, but it cannot indicate or delineate the form of history.

This terminal estheticism of historiography harbors a second element still more fatal to the projection of the philosophical problem of history. This is the violent disorientation of the logical moment or act. In the process of giving logical structure to history, the concept was subordinated to the image as but one more formal determinant. In fact, however, the orientation of the concept and of the logical act is not toward the image as pure intuition but toward action, that is, toward the solicitation of actuality. The inner dynamic of the idea is not toward the determination of the image but toward the determination of the will in decision, not, therefore, back upon the self and an initial dream state, but outward upon nature and the real to be actualized, upon history as the public domain of existence. It is at this point also, that the proper relationship between the philosophical problem of history and the theoretical problems of historiography begin to appear. For once it is understood that the orientation of the logical act of the theoretical moment in general, is toward action, and not back upon

itself or one of its immanent moments, it also becomes clear that the existence proper to historical reality is the term of economic and of ethical action and not of mere logical predication. The existence proper to the image of historiography is a derived, not a primary, existence.

Historicism, consequently, that is, the attempt to project the philosophical problem of history from the ground of the theoretical problems of historiography, especially in the form of a theory of the historical judgment as the formal determination of the image to existence falls short of the minimal euristic demands of the philosophical problem of history, because the result of this effort is to throw the logical act back upon the realm of pure intuition rather than forward upon the theatre of action and decision.

II

The perspective fallacy of historicism has exercised a dominant, but not undisputed, sway over the theoretical aspects of history; it has been challenged at its most vital point by the philosophy of history. While the program of historicism has been the projection of the philosophical problem of history from the ground of the theoretical problems of historiography, the philosophy of history has consistently maintained the character of history as an order primarily of existence, not of knowing, and consequently that the writing of history must itself be predicated, either overtly or covertly, upon antecedent principles. These principles it has been the concern of the philosophy of history to discover or to formulate, not simply as the preambles to historiography but rather as autonomous speculative concerns. Thus that complexus of theories which pass collectively under the title of philosophy of history would seem to possess a certain superiority over historicism because it is oriented toward history as a realm of existence and meaning and is not inclined to confuse that realm with the specific problem of our knowledge of it. Nevertheless, the philosophy of

history has in its turn consistently assumed fallacious points of view which wholely dissipate this advantage.

Specifically, the philosophy of history has consistently fallen into a dual fallacy of reduction; on the one hand it has sought to reduce the concept of history to the concept of nature, on the other to the concept of spirit; in either case, of course, with the same concern, to secure history as a realm of meaning and existence. Overtly this fallacy has appeared principally in gnoseological form, that is, in answer to the question of the conditions of meaning in history and has, consequently, consisted precisely in the attempt to bring history as a theatre of meaning within the limits of the gnoseological aspects of nature and spirit; in either case the thesis has been the same: history will have been established as a theatre of meaning, if the conditions of meaning defined in the concepts of nature and spirit respectively can be shown to prevail in its case also. Since the order of meaning scarcely possesses autonomy, however, but tends consistently to revert to more primitive ontological terms, the overt gnoseological form of this fallacy conceals an ontological substructure, that is, an ontological identification of history with nature or spirit. Basically, however, the fallacy is phenomenological, that is, it rests upon a phenomenological confusion of the order of history with nature and spirit. For purposes of criticism it is sufficient to restrict attention to the overt form of the fallacy, though it is clear that a euristic construction of the philosophical problem of history must extend and indeed take its point of departure in the problems which this overt form conceals.

The attempt to bring history under the concept of nature as a theatre of meaning follows two chief lines. The first is the attempt to establish history as a theatre of causality in the gnoseological sense or dimension of this principle; the second, the attempt to fix history as an order of objects, to establish the objectivity of history on the same lines as the objectivity of nature. In both these procedures the phenomenological confusion and the ontological identification of which mention has been made hover menacingly in the background.

The naturalistic principle of causality is in the first instance an existential principle; that is, the primary reference of the principle of causality within the concept of nature is to existential natural process. The principle becomes a principle of meaning, in addition to and as a consequence of its existential character, when its primary terms are translated into terms of logical inference, and the necessity which constitutes its most intimate character is recognized to be logical necessity. This translation achieves the transformation of the blind interplay of the brute forces of nature into a theatre of meaning, significant, intelligible and even intentional in its own right. To express this more concretely, we grasp the meaning of events and processes of nature only to the degree to which we grasp the logical, as distinct from the merely existential, necessity of their interrelation, only to the extent, that is, to which the existential ceases to appear simply as given. So clear is this to naturalistic theory that even to say that "a" is the cause of "b" in natural process is to profess the power to infer "b" from an adequate knowledge of "a" even in the absence of the existential process itself, so that the inferential structure "if a, then b", "if b, then a", becomes the classical type formula for the significent penetration of natural process. The whole meaning of causality and of nature itself is translatable into this type formula, so that to have meaning in nature is nothing else than to fullfill this inferential structure.

The nub of this thesis for the philosophical problem of history is the manner in which this translation from the existential to the logical level actually takes place. The form of this translation is fatal for history, or, more precisely, for a naturalistic philosophy of history. Logical necessity emerges from existential nexus only by the generalization of causes; as a consequence, in the order of natural causes, the force of inference, that is, of logical necessity, decreases as the existential instance is approached and conversely increases as the system of inference recedes from the immediacy of the instance. This process rests upon a double abstraction, qualitative and temporal. The necessity involved in logical inference between

cause and effect is timeless or, more precisely, rests upon a temporal abstraction; to grasp the meaning of natural process in terms of causal inference is precisely to refer the temporal apparition of existential relations to a temporal principle. Thus the time factor, although as a matter of fact actually constitutive and determinative of natural existential process, is logically irrelevant or tangential and does not enter into the interpretable meaning of the process. That natural event "x", structualized causally into the existential stasis "a" and antithesis "b" and logically into the form "a therefore b" transpired at time "t" is not part of the meaning of intelligibility of "x"; and this even in view of the fact that natural causal process transpires wholly in time so that existentially to be in nature is to be in time. Causality as a principle of logical necessity and consequently of meaning is thus general with respect to the distribution of natural process in time.

Similarly, the logical necessity of the naturalistic principle of causality rests upon abstraction from the qualitative richness of existence. The quantification of all causal relations becomes the condition of their logical structure. The richness of the qualitative world, in Hegel's powerful phrase, we take upon ourselves and relegate to a realm of pure subjectivity, that is to a world of existential but non-logical relationship.

These strategies to which naturalism has in the past been put in order to translate mere events into intelligible causal relations according to a rule of logical inference have occasioned considerable perturbation among naturalists themselves. They contain the seeds of the formalization of science which has been proceeding relentlessly for centuries. When applied to the interpretation of historical process, they appear clearly self-defeating. Time and qualitative determination are not the accidents, but the intimate substance of historical transaction. The detemporalization and qualitative impoverishment of historical process annihilates it, rather than renders it meaningful or intelligible. The general causes of which the naturalist can speak and with which he can rest content within the purview of

his preoccupations, clearly possess no logical force in history precisely because it is the temporal and qualitative dimensions of the historical event and process which demand clarification. The historical process is totally concretion, temporally and qualitatively and as a theatre of meaning cannot leave these conditions of concretion behind. If general causes are operative in history under the guise of natural factors they operate, as Turgot pointed out long ago, only through conscious concretion, that is through the human spirit, as it is itself temporally and qualitatively distributed. Any attempt to construct the gnoseological theory of history on the basis of logical necessity as it is developed in the concept of nature has the result only of distorting the intimate structure of history and of translating its qualitatively rich and temporally distributed drama into the pale dialectic of abstractions on the grey field of an eternity which is history's negation, not its fulfilment.

The fallacy of reductive naturalism appears again in the philosophy of history under the guise of the problem of the objectivity of history. The import of the fallacy from this point of view is that historical events and processes, from the gnoseological point of view, occupy the same transcendent references as do the objects of natural science and that, consequently, the canon for meaning in history must be identical with that of a realistic naturalism, namely, the conformity of idea with object. The root of the fallacy in this respect is clearly the imitative theory of knowledge to which naturalism, in its own area quite rightly no doubt, is committed. The extension of this theory to the area of history on the basis of mere analogy is a clear case of a phenomenological confusion which erupts on the gnoseological level. It is phenomenologically impossible to reduce the historical event or form; it is consequently at this level that the fallacy of historical objectivity must be met.

The assertion of the phenomenological incommensurability of historical and natural forms appears readily comprehensible in the light of almost any chance example; the work of art is especially impressive in this respect. For that the work

of art in its precise character as art is not a natural form nor its existential conditions those of natural objects or events is patent. Conversely, the history of esthetics from Aristotle forward illustrate again and again the impasse into which all attempts to deal with the work of art naturalistically, that is, as an object, are forced. Such attempts result in the annihilation of the work of art in precisely its artistic character and its replacement with some naturalistic substitute such as a psychology, an ideology, an economics or a sociology of art.

What is here illustrated by the case of the work of art is more generally true of all historical forms. Essentially incommensurable with natural forms, historical forms resist reduction to natural at the phenomeological level. Their confusion with such forms results in the pseudo-problem of the objectivity of history and the second form of the naturalistic philosophy of history.

The reductive fallacy appears again in the philosophy of history in the subsumption of history under the concept of spirit. In this subsumption it is asserted that the conditions of meaning in history are reducible to the conditions of meaning in the concept of spirit. Formally, this reduction of history to spirit is identical with the naturalistic form of this fallacy but has arisen in dialectical opposition to the naturalistic form. The attempt to subsume history under the concept of spirit has been motivated by the desire to preserve history from those contradictions into which the naturalistic fallacy plunges it; its result, however, is to expose history to new dangers and difficulties no easier, perhaps even more difficult, to disengage.

The concept of spirit is rooted in the rich humanistic tradition of western thought. Specifically, it arose in answer to man's need to articulate his sense of transcendence over the necessities and fatalities of nature. Consequently, it has progressively defined itself in the terms in which that transcendence most vividly impresses itself upon him, namely liberty and consciousness. Just as the dynamic of naturalism has been toward the darkness of utter necessity, so the dynamic of the

self-definition of spirit has been in the direction of creative self-conscious idea, a dynamism which may easily override the humanism in which it has its origins.

Spirit has its initial moment of self-definition in the rejection of the imitative theory of knowledge so identified with naturalism. Spirit first enunciated itself in the history of thought in the assertion of the creative character of thought, of the identity of subject and object; this assertion arose when first it was sensed that nature is spirit's own shadow which in its initial ingenuousness it mistakes for substance. The creative character of thought carries with it the identification of meaning as the self-discovery of spirit in its free generation of forms. For this reason, spiritualistic attitudes have assigned a high gnoseological value to art, for it is in art that they discover the cell of all significance. Art is the stumbling block of naturalism, but it is the keystone of spiritualism. The final enunciation of spirit is freedom or liberty, which is synonymous with creativity itself. By it man, idea, reality are released from nature's dark necessities, from its bondage, from its inevitabilities. Over against nature, in terms of its own freedom and creativity, spirit may write large the meaning of life in terms which at every point give the lie to the dark deliverances of natural necessity.

In its initial rejection of nature, whose processes are deployed through time and constitute the substance of time, the tendency of spirit is to reject time and process along with nature and to retreat into the recesses of undifferentiated unity and self-identity. This is the plotinian moment of transcendent absolutism and in a certain sense would seem to constitute the ultimate self-enunciation of spirit. Actually, however, this is the contradiction of spirit. This negation of time and process within spirit is intimately contradicted by human spirit. Man as spirit is conscious of transcending nature not absolutely, but relatively, not out of time, but in time, in a word, not by the transcendence, but in the creation of history.

Thus it is that the conception of history as a realm of meaning in terms of the transcendence of spirit over nature

emerges. History is the substance of that transcendence; it is the transformation which spirit works in the bosom of nature and in response to the challenging limitations and necessities of nature. Nature on every hand presses upon man with its necessities, its fatalities, its inevitabilities, defining in an iron ring of circumstance the limits of meaning; but the necessities of nature are the death of spirit. At every point, consequently, spirit counters the definition of nature by the generation of its proper forms of self-consciousness which, in the words of Paul, transmute death into victory. Thus history as a realm of meaning emerges as the enunciations of self-conscious spirit in defiance of the necessities and limitations of nature. Over against brute power, spirit defines right and polity is born. Over against the commotion and the unilaterality of passion, spirit defines the ideal, and serene art is born bringing with it the transformation of passion itself into joy in the beautiful. Thus every element in the phenomenology of history, that tight complexus of conscious forms which resist with all their inward power reduction to nature and compose the historical awareness of man: laws, arts, social institutions, takes on significance as the progressive self-enunciations of spirit in the face of nature. Conversely, spirit finds its own concrete reality and definition precisely in these forms, for the transcendence of spirit over nature is but a waking dream until translated into these historical concretions. History in this way becomes not merely an order of meaning generated by spirit but the concrete definition of spirit and its substance; for spirit lives and is actual only in those moments of the concrete transcendence of nature: in the just deed and law, in the well wrought form of art, in the aspiration toward life absolute and unconditioned. Finally this transcendence is rendered complete by the dissolution of nature into the negative moment of spirit, into the realization by spirit that it defines itself not over against the substance of a real world standing over against it in self-sufficient subsistence, but over against its own non-being. Nature having been thus swallowed up in history, history becomes the inward process whereby spirit suc-

cessively transcends not nature, but itself, in every moment of its concretion. The deployment of spirit through time is the condition of its self transcendence and not a limit imposed by a dark and alien power.

It is in this last and extreme enunciation, logically implicit in the concept of spirit when that concept is detached from its humanistic moorings, that the fallacy of the reduction of history to spirit becomes apparent. For with the resolution of nature into spirit, the rationale of spirit itself disappears and with it the possibility of significent history. For with the dissipation of nature the laws by which spirit deploys itself into absolute history lose their freedom and take on a character of necessity indistinguishible from the necessities of nature. The freedom which is the essence of spirit is realized in the transcendence of nature and without nature as a real and subsistent *point d'appui* loses its specific character. Its temporal process, history, becomes indistinguishible from natural process. This is the reason why in the history of thought the hard bolus of natural necessity has tended to reassert itself in the bosom of all spiritualisms which lose their humanistic cast and the concrete reason why the reduction of historical process to the self-articulation of spirit is destructive of history alike as a realm of meaning and of form.

III

These considerations would seem to make one fact transparently clear: heretofore the formulation of the philosophical problem of history has foundered upon the rocks of alien supposition. Successive and often repeated attempts to formulate this problem, now on suppositions proper to historiography, again on those proper to the concept of nature, and finally on grounds of the concept spirit have proved uniformly self-defeating. As a consequence, disengagement from these alien suppositions becomes the first euristic condition for the philosophical problem of history.

Such disengagement would at first appear to be a negative dialectical process; as a fact, however, it can be accomplished finally only by a positive enunciation of the supposition proper to the problem of history. This positive disengagement must consist in the formulation of euristic canons which will on the one hand prevent the intrusion of alien supposition into the formulation of the problem and on the other describe the fundamental lineaments of the autonomous concept of history, by making clear the basic material supposition within which the problem of history arises.

A further euristic condition is suggested by the reflection that alien suppositions have entered the formulation of the philosophical problem of history invariably at the phenomenological level. They have gained access and plausibility because of the confusion which has always existed in even the descriptive account of historical forms. Here the power of analogy has been overwhelming and precisely because it has proven so fruitful in the history of thought in other respects has outweighed the otherwise clear necessity for an unambiguous descriptive disengagement of historical forms. That historical structures or forms are not forms of nature or spirit would appear easily comprehensible; as a matter of fact, however, the distinction is not readily granted, or if granted, is immediately nullified. As a consequence, the primary euristic condition of the philosophical problem of history is further refined: a canon which operates for the unambiguous discernment of historical from other forms at the descriptive or phenomenological level.

To this end, a bulwark must first of all be erected against the overpowering solicitation of analogy. This bulwark is readily provided by a canon of irreducibility. Such a canon might well be formulated in something of the following manner: the characterization of the phenomena of history, of historical forms in their descriptive aspects, may bear an analogous, but only an analogous relation in denotation and connotation of terms to the characterization of any other order of phenomena, such, for example, as those of nature, or of spirit; further,

where possible this analogy should be one only of simple proportionality. In this manner, any reduction of historical forms to non-historical even at the descriptive level becomes impossible, while the powerful aid of analogy is still retained. The force of this canon must be to preclude those fallacies which result in the explanation of history in terms borrowed from other theatres of discourse and other structures of meaning.

Nevertheless, the canon of irreducibility is but a negative rule, for it provides no basis for the positive characterization of historical structures even at the descriptive levels, save perhaps by a system of residues. It must be complemented by a positive canon of equal or greater force, which might secure the characterization of historical forms in positive terms. Such a canon is to be found in the time-form relationship.

Abstractly, and in the character of a descriptive rule, the time-form canon may thus be stated: those forms belong to history whose characterization demands the inclusion of the time factor not as extrinsic and formal, but as intrinsic and constitutive.

The force of this canon is readily seen as it operates to enforce and re-enforce the canon of irreducibility with respect to the phenomena of nature. The unambiguous character of natural form is timelessness; or, more accurately, time enters natural form as extrinsic and formal, not as intrinsic and constitutive. Processes of nature, consequently, which are subject only to the law of indefinite repeatability are clearly excluded from the order of historical phenomena, while a positive criterion for the descriptive and constitutive time, is provided.

The canon is seen to operate with equal force in the direction of the clear distinction of the phenomena of history from those of spirit. It is obviously most doubtful whether deployment through time is an essential dimension of consciousness as such; an assertion that it must be, might well represent a persistent anthropomorphism. For while it is true that human consciousness is subject to a dialectic and thus is intimately constituted of time-form, this can be taken to mean

only that man belongs to history (or more accurately, that history belongs to man) and that to the degree to which spirit is characterizable absolutely in terms of consciousness, time is not an absolute character of spirit. In a word, humanistic spiritualism may perhaps be abortive, and human history cannot exhaust the concept of spirit.

However, it is not thus abstractly and dialectically, that the time-form canon is finally justified. Rather, its power is revealed as an instrument for the erection of a concrete phenomenology of history. Conformity to the time-form canon is the single infallible note of historical structures and by this note the concrete content of history is unambiguously identified. By this canon the area or field of historical forms is irreducibly distinguished on the one hand from the forms of nature and on the other from those of spirit, from absolute or transcendent ideas or essences. Nevertheless, this power as an instrument for the descriptive phenomenology of history, does not exhaust the time-form canon; it is further the chief instrument for the analysis of the concrete content of the field of historical forms.

The employment of the time-form canon as an analytic rather than merely as a descriptive instrument, brings into focus a further dimension of the philosophical problem: the gnoseological. As an instrument of analysis, the time-form canon is directed toward the isolation of the primary constitive principle of historical structures. The immediate result of this application is the conclusion that form in historical structures is primarily a category of meaning or intention. Historical forms, civil institutions, for example, art, or the sciences themselves, regarded even abstractly are opaque to any penetration or comprehension save in terms of meaning or intention. They resist, on the one hand, treatment as objects of contemplation, that is as eternal ideas or essenses, and on the other hand, dynamic and pragmatic analysis. The structure of Roman civil law, or of a concrete work of art, resists, on the one hand, contemplative construction, for in neither can the mind rest as in the absolute idea either of justice or of beauty; equally on the

other hand do they resist a pragmatic or practicalistic construction, for both are theoretical discernments, not structures of power. They respond only to analysis as structures of meaning or intent; structures in which theoretical discernment passes over into dynamic and practical transformation of a material.

The peculiar character of historical forms as structures of meaning or intent is the entrance of time into the constitution of these structures precisely as intentional and significant. Unlike natural forms as structures of meaning, the forms of history demand deployment through time as the absolute condition of significance. The ideal discernment which is an intrinsic principle of the historical form is such that it demands time as the theatre of its significance. It is never an instantial and self-contained intuition whose subsequent deployment is tautological. When reduced to such intuition, the ideal discernment of time-form becomes sterilely abstract and self-denying. Witness is born to this truth by the fallacy of primitivism as well as by the complementary fallacy of utopianism; both, while pretending to be historical interpretations, actually constitute the negation of the time element of historical form and hence of history itself.

History then as the province of time-form immediately involves the first speculative question of the philosophical problem of history, namely, the character and conditions of meaning in time. This, frankly, is a problem with which western thought has dealt only obliquely. Its initial gnoseological insight has held the conditions of meaning to be timeless, and western thought has been faithful to this insight. When confronted with the problem of meaning and time in any of its aspects it has tended to adopt a strategy of reduction resolving the time aspect into some form of continuity of generality.

The gnoseology of time-form is not, however the ultimate question involved in the phenomenology of history; behind it lies the ontology of historical forms. Meaning is a medial term; its anchors are in the forms of being, and it demands conversion into these terms. The problem of historical existence, that is,

the problem of the existential conditions and implications of time-form structures of meaning, looms as the terminal question of the philosophical problem of history. The concrete form of this problem is the relation between thought and action, between meaning and existence, between intent and decision. For it would seem immediately evident that the only term which can relate meaning to existence or, more properly, which can fulfill meaning in existence is will or decision.

These consequently would seem to constitute the three pivotal questions about which the complex philosophical problem of history must be constructed. It is in terms of these questions alone that the philosophical problem of history can be formulated without the intrusion of nullifying alien suppositions. It is along the lines of the solution of these questions that speculative penetration of historical actuality may be hoped for, and the actualization of the desire for a fresh rapprochement between history and philosophy so keenly felt by contemporary culture may be secured.

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ANAXIMANDER, THE FIRST METAPHYSICIAN

Anaximander of Miletus[1] was the first metaphysician,[2] and an important one. Son of Praxiades, he was born B.C. 610 and died c.B.C. 545. As a citizen of Miletus he was sufficiently distinguished[3] to be chosen leader of a colony sent to Apollonia. As a scientist he is said (although on questionable authority) to have invented the gnomon, made clocks, made the first map of the earth,[4] and made a celestial sphere. He is usually said to have been a pupil of the famous Wise Man Thales.[5]

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[1] The sources for the study of Anaximander are collected in H. Diels, *Die Fragmente der Vorsokratiker*, 5th ed., vol. 1 (Berlin, 1934), sec. 12 (pp. 81-90). In the absence of the scarce fifth edition, the earlier editions will be found to include the same material.

[2] I call him the first with three qualifications: (1) This means the first known to us, not the first who existed; doubtless there were many earlier ones whose fame has been lost. (2) It means first among the Greeks; no comparison with oriental thinkers is intended. (3) It means metaphysician in the technical sense; we know of earlier Greek philosophers — philosophical poets such as Hesiod, religious teachers such as Orpheus, and popular philosophers such as the Seven Wise Men.

[3] A sixth century statue of Anaximander (or else another man of the same name) has been excavated at Miletus. In its present condition it has little value as a work of art and none as evidence of its subject's appearance. For a photograph, see Wiegand, *Milet*, heft 2, p. 112.

[4] Superseded by the improved map of Hekataeus. Anaximander had no problem of projection, as he believed the earth to be flat.

[5] Thales of Miletus is among the most overrated figures in the history of philosophy. His fame as the founder of philosophy seems to rest entirely on the fact that Aristotle calls him the founder of materialism and mentions him first among the physicists whose theories are cited at the beginning of the *Metaphysics*. But Aristotle was not writing a history of philosophy; he was discussing a particular problem. Diogenes Laertios, who did write a history of philosophy, calls Anaximander and Pythagoras the founders of the Ionian and Italian schools of philosophy respectively, and Thales and Pherecydes their predecessors as being their teachers not as being themselves philosophers.

The most interesting story about Thales is that, by the aid of his scientific wisdom, he made a large profit by cornering the oil market, thus demonstrating once for all, as Aristotle says, "that philosophers can easily be rich if they like, but that their ambition is of another sort." But even

(Note 5 continued)
if the truth of the story be conceded, the moral would follow only if Thales could be shown to be a philosopher from independent evidence, and this cannot easiy be done.

The most plausible evidence of his wisdom is that he is said to have advised the Ionian cities to unite in a federal state. This was surely wise advice and proves, if the story is true, that Thales possessed political wisdom like the others of the Seven Wise Men with whom he was traditionally associated, differing from all the others however in that they were successful statesmen whereas his advice was ignored. We can conclude that Thales was probably a wise statesman, but this would not justify considering him a philosopher in the technical sense, any more than the other six, who are never called philosophers.

His fame in applied science rests on his having diverted the river Halys to enable the Lydian army to cross — a not inconsiderable feat. But our only source for this incident is Herodotus, and Herodotus adds that he himself does not believe a word of it (and gives his reason, that there was a bridge). The rejection of the story by its only source cannot but dampen our enthusiasm for believing it.

The favorite Thales story, repeated by all historians of philosophy, is that he predicted a total eclipse of the sun which stopped a battle between the Medes and the Lydians. It is a favorite because the historian, instead of merely copying what his predecessors have written, can question his astronomical colleague about the eclipse and so give a scientific confirmation of history. The answer is that there was a total eclipse of the sun in that region May 28, B.C. 585. There can be no question that this eclipse occurred, and if Herodotus says it stopped a battle there is no good reason to doubt that it did. The question is whether Thales predicted it. Again our only source is Herodotus, and all he actually says is that Thales foretold "the very year in which it actually took place." Now to predict the year of a total eclipse is no very great achievement, in view of the fact that such eclipses occur almost every year; the trick is to predict the exact time and place. If Herodotus had reason to believe that Thales actually did so, it is strange that he would have recounted the event in a way which omits the essence of the story.

Thales's fame as a mathematician has grown through the ages, and reached what is so far its highest point when Allman (*Greek Geometry from Thales to Euclid*, 1889) called him the founder of algebra. Most writers have been satisfied to expand on his achievements in geometry. When these claims are traced back to their ancient sources, they seem to have evolved from one original story to the effect that Thales taught the Egyptians a solution of their problem of how to find the height of a pyramid. His ingenious solution was: wait until a time when a man's shadow is exactly the same length as the man's height, and the pyramid's shadow will then be exactly the same length as the pyramid's height. This evidence of Thales's genius has been repeated by many historians of philosophy. For ex-

(Note 5 continued)
ample, Gomperz, in his *Greek Thinkers*, says: "We may readily credit the tradition that Thales supplied his Egyptian masters with the method they had sought in vain of computing the height of the towering pyramids which are the wonders of their home. He pointed out to them that at the time of day when a man's shadow — or that of any other object presenting no difficulty to mensuration — is exactly equal to the size of the original. then, too, the shadow of the pyramid can neither be longer nor shorter than its actual height." More recently Jeans, in his *Growth of Physical Science* (1948), explains the method and adds, "If this was all, Thales may not have been acquainted with the more general proposition, nor even with the rather difficult idea of proportionality" — evidently worrying as to whether Thales knew geometry in general or only this one rule. Hegel, rather more pertinently, remarks, " If this were something new to the Egyptians, they must have been very far back in the theory of geometry." But none of these historians seems to have noticed that the whole story is only a joke of the same type as the rule to catch a bird by putting salt on its tail. The formula would undoubtedly give the correct height of the pyramid if it could be applied; but it would be necessary to measure the shadow from its apex to the center of the pyramid, which is obviously impossible; in fact a pyramid with a 45° slope (and the Egyptian pyramids are nearly that) casts no shadow at all under the circumstances required by the rule.

His known contributions to psychological science consist of the two opinions, vouched for by Aristotle, that "all things are full of gods" and that "the magnet has a soul because it moves the iron." The former seems to be merely a statement of the primitive animism generally accepted by the ancient Greeks; at least, no more profound meaning can be inferred from the text. The latter is either a statement of a well known fact (that magnets attract iron) or else an illustration of the former proposition's animism (the attraction being explained by the god in the magnet) — although, if preferred, it can be taken as a refutation of animism. since there is some logic in Burnet's comment that to say the magnet is alive "is to imply, if anything, that other things are not." In the absence of the context it is impossible to find any clear meaning, let alone any profound philosophy, in these fragments.

We come finally to the famous dictum that water is the source (ἀρχή) of all things. Taken literally, without any interpretation, this is mere nonsense (unless we follow Russell's suggestion, in his *History of Western Philosophy*, that, since all things are made of hydrogen, which is two thirds of water, Thales was two thirds right — and the devotion of the first lecture to this theory has doubtless discouraged more than one student from taking Phil. 1. Presumably Thales meant something; but what? Aristotle did not know, and no discoveries made since his time have thrown any light on the mystery. Almost every historian of philosophy has endeavored to explain what Thales meant, and since there is no evidence bearing on the subject there are no restrictions on the hypotheses which can

Anaximander wrote a book which was catalogued by the librarians of Alexandria under the title **Περὶ Φύσεως** — the first of many books so called. It is the first known philosophical work, in fact the first known prose work, in Greek.[6] Of this book only one sentence is extant: "Into that from which beings have their origin they also have their passing away, by necessity; for they render to each other retribution and atonement for their injustice in the order of time." [7] But numerous references from reliable ancient sources enable us to recon-

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(Note 5 continued)
be framed. Aristotle himself suggested that Thales based his statement on the importance of water in biological phenomena, "perhaps." Burnet argues that Thales had meteorological, rather than biological, phenomena in mind. Fuller explains it by saying he had in mind, "probably," the obvious transformations of water into gaseous and solid forms and "stretched his imagination to suppose a further alteration of water into the manifold and diverse kinds" of things (but withdraws this in a later work in favor of the statement that all the hypotheses are "only conjectures"). Windelband finds the secret in the fact that liquids, unlike solids, "make the impression of independent mobility and vitality." Hegel interprets Thales as "comprehending essence as devoid of form," and explains this by the fact that water "has not got a sensuous universality, but a speculative one merely." These theories do great credit to the metaphysical ingenuity of their authors, but they throw no light at all on the purely historical question of what Thales himself taught; as Zeller says, "It is difficult for us to come to any definite conclusion on the subject." While we may concede that Thales did teach that water is the source of all things and that he did mean something by this, we must also conclude that it is impossible to know what he meant and that there is no reason to suppose that what he meant was very profound.

Since Thales wrote no book, any influence he may have exerted must have been through oral teaching. The only person who has ever been called his pupil is Anaximander, and there is nothing in any of the doctrines of Anaximander which remotely suggests any of the teachings attributed to Thales.

[6] This claim can be disputed in favor of the book of Pherecydes, but the date of Pherecydes is unknown and he cannot be shown to be prior to Anaximander. The scanty fragments of his book do not permit a reconstruction of his doctrine, but they indicate that it was allegorical myth rather than technical philosophy.

[7] *ἐξ ὧν δὲ ἡ γένεσίς ἐστι τοῖς οὖσι, καὶ τὴν φθορὰν εἰς ταῦτα γίνεσθαι κατὰ τὸ χρεών· διδόναι γὰρ αὐτὰ δίκην καὶ τίσιν ἀλλήλοις τῆς ἀδικίας κατὰ τὴν τοῦ χρόνου τάξιν* (Diels, 12 B 1).

struct, with reasonable certainty, some of the principles of his doctrine.

Anaximander contributed to philosophy eight important concepts. Four are metaphysical; one is ethical; two are cosmological; and one is psychological.[8]

(1)[9] Anaximander introduced into philosophy the concept of God in the philosophical sense. Since God is the ultimate reality, with which metaphysics is primarily concerned, this can be considered the most basic concept of metaphysics, and its introduction can be considered the beginning of the history of metaphysics.[10] For God Anaximander did not use the word **θεός**, which in the sixth century would mean a god in the polytheistic sense, but the adjective **θεῖον**, literally "divine," preceded by the definite article to make it a substantive, and put in the neuter gender to indicate a metaphysical rather than a personal entity. There is no exact English equivalent for **τὸ θεῖον**; it corresponds to the neuter "Brahma" of Hindu philosophy.

Our knowledge of Anaximander's use of this concept is based exclusively on Aristotle's statement, "The Source has no source, but is itself, it would seem, the source of other things and encompasses all things and directs all things, as they say who do not posit other causes, such as mind or love, besides the indefinite; the latter being the divine, for it is immortal and indestructible, as Anaximander and most of the physicists say."[11] The passage has a certain ambiguity: it is

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[8] I say nothing of his biological doctrines. They have often been represented as an anticipation of the theory of evolution. This may be right, but the sources for his biological theories are so incomplete that it seems impossible to determine what, if anything, he did teach about evolution.

[9] Source for this section: Diels, *Frag. der Vors.* (5th ed., vol. 1) 12 A 15.

[10] Werner Jaeger (*Theology of the Early Greek Philosophers*, p. 31) asserts, "The concept of the Divine as such does not appear before Anaximander," and remarks, "This expression is of epoch-making importance in Greek philosophy."

[11] **οὐ ταύτης ἀρχή, ἀλλ' αὕτη τῶν ἄλλων εἶναι δοκεῖ καὶ περιέχειν ἅπαντα καὶ πάντα κυβερνᾶν, ὥς φασιν ὅσοι μὴ ποιοῦσι παρὰ τὸ ἄπειρον ἄλλας αἰτίας οἷον νοῦν ἢ φιλίαν· καὶ τοῦτ' εἶναι τὸ θεῖον· ἀθάνατον γὰρ καὶ ἀνώλεθρον, ὥς φασιν ὁ Ἀναξίμανδρος καὶ οἱ πλεῖστοι τῶν φυσιολόγων** (*Phys.* 203b).

not obvious whether the clause, "As Anaximander and most of the physicists say," is intended to cover the whole sentence, "The latter being the divine, for it is immortal and indestructible," or merely the final part of it, "For it is immortal and indestructible." In the second case, "The latter being the divine," would be Aristotle's own remark and not attributed to Anaximander. Either interpretation is possible grammatically, but the second is impossible historically. In Aristotle's philosophy the indefinite (matter) is just the opposite of the divine (form),[12] and so the remark that the indefinite is the divine cannot be a gloss by Aristotle. It must, therefore, be part of the quotation from Anaximander.[13]

(2)[14] Anaximander described God by the phrase *the indefinite* (**τὸ ἄπειρον**), and so introduced into Greek philosophy [15] the way of thinking of God as transcending all concepts. The references include certain synonyms for **ἄπειρον** : **ἀΐδιον** (eternal), **ἄγηρω** (unaging), **ἀπέραντον** (infinite), **ἀόριστον** (indeterminate). It will be noticed that all except one of these adjectives are negative; the only positive attribute of God is *eternal*.

There has been some controversy as to whether **ἄπειρον** is to be interpreted as meaning *qualitatively indefinite* or *quantitatively infinite*. A third hypothesis was proposed by Paul Tannery,[16] who derived **ἄπειρον** from **πεῖρα** (experience) instead of **πεῖραρ** (end), and so translated it *unperceived*.[17]

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[12] Cf. *Phys.* 207b.

[13] This is questioned, however, by Præchter (Ueberweg, *Grundriss der Gesch. der Phil.*, Pt. I, 12th ed., p. 46).

[14] Sources: Diels 12 A 1, 9, 9a, 11, 14, 15, B 2, 3.

[15] It is found earlier in Sanskrit literature. For a discussion of the use of the analogous word *aditi* in the much more ancient *Samhita of the Rig Veda*, see Max Müller, *Vedic Hymns*, Part I (Sacred Books of the East, Vol. 32), pp. 241-263.

[16] Rev. de Phil., 4 (1904), pp. 703-707 (Mem. Sc., vol. 7, pp. 309-314).

[17] This Kantian interpretation is ingenious, but there is no historical evidence for attributing it to Anaximander. Other proposed hypotheses identify the **ἄπειρον** with the Orphic **Αἰὼν ἄπειρος** and so perhaps make it mean temporally unending (R. Eisler, *Weltenmantel*, 11, 666; cf. Cornford, *From Religion to Philosophy*, p. 146) or interpret it as indefinite neither

Insofar as these interpretations are equivalent, the issue at stake is not very great. If the deity is qualitatively indefinite, it is presumably also quantitatively infinite at least in a negative sense, since only something definite can have a boundary. This is suggested by the reference which calls it "indeterminate both in form and in size" (*ἀόριστον καὶ κατ' εἶδος καὶ κατὰ μέγεθος*). And if it is indefinite, it is presumably imperceptible. The only view inconsistent with the interpretation of *ἄπειρον* as indefinite is the theory that it means quantitatively infinite *only* and that *τὸ ἄπειρον* consequently means infinite space. This theory is maintained by Burnet,[18] who defends it by three arguments: (1) the *ἄπειρον* is said to encompass (*περιέχειν*) all the worlds; (2) Aristotle [19] calls it a body (*σῶμα ἄπειρον*); (3) Anaximenes adapted the theory to air. None of these arguments seems very impressive. Convincing evidence that Anaximander did not mean spatially infinite only, but meant qualitatively indefinite also, is found in the statement of Theophrastus [20] that Anaximenes agreed with Anaximander in calling the underlying nature (*τὴν ὑποκειμένην φύσιν*) one (*μίαν*) and infinite (*καὶ ἄπειρον*) but did not agree with him in calling it indefinite (*ἀόριστον*) but rather considered it definite (*ὡρισμένην*), since he called it air.[21]

Whatever ambiguity there may be about *πειρον*, there is no ambiguity about the prefix *ἀ-*. Whatever *πειρον* may mean, Anaximander's God does not have it. Apparently it means any definable attribute whatever. This un-Platonic and un-Aristotelian theology is quite foreign to classical Greek thought, but reappears in the "negative theology" of the Christian writers of the patristic period, most explicitly in the works attributed to Dionysius the Areopagite. Thus the fundamental

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in extent nor in essence but only in the sense of being *homogeneous* (Guyot, Rev. de Phil., 4 (1904), pp. 708-715).

[18] *Early Gr. Ph.*, p. 58.

[19] *Phys.* 203b26.

[20] Diels 13 (Anaximenes) A 5.

[21] Far from considering *space* infinite, Anaximander seems to have assigned it very modest dimensions, 27 times the earth's diameter (see below).

doctrine of Anaximander is an anticipation of the "negative theology" of Christianity.

(3)[22] Anaximander introduced the concept of emanation to explain the origin of the universe and its relation to God. His word for this is ἀποκρίνεσθαι (literally, to separate from), with a variant ἐκκρίνεσθαι (to separate out of). The universe of things comes into being by emanation (literally, separation) from the indefinite. This emanation is due to an "eternal motion" (κίνησιν αἴδιον) — a phrase which seems to indicate the activity of the dynamic (κινούμενον) indefinite. The immediate product of emanation (and so source of all other things) is described as "the opposites" (τῶν ἐναντίων), that is, contrasted qualities. These "opposites" include hot and cold, the first distinction in Anaximander's cosmogony; what other qualities, if any, emanate immediately from the indefinite is not clear.

This speculation concerning the origin of all things out of the indefinite (which is not a thing or kind of thing) must not be confused with speculation concerning the origin of one kind of thing out of another. The latter is physics; the former, metaphysics. Anaximenes proposed the physical theory that one kind of thing is produced from another by condensation or rarefaction, but he had no metaphysical theory concerning the origin of the first things. Anaximander's book contained physics also, but it was expressed in terms of qualities (like Aristotle) rather than density (like Anaximenes and modern science). He seems to have taught that the original "hot" surrounded the earth "as bark surrounds a tree" and then broke up into rings which became the sun, moon, and stars; while the "cold" became the sea, which partly evaporated to become air and partly dried up to become land. The sources for this speculation, however, are so brief, obscure, and unreliable that it is impossible to reconstruct Anaximander's physics or cosmogony[23] with any confidence.

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[22] Sources: Diels 12 A 9, 10, 11, 13, 14, 15, 17, 17a, 27; Diels 13 A 5.

[23] We must distinguish his physical cosmogony, theory of the formation of the ordered universe out of the definite elements or qualities from which it arose, from his metaphysical theory of the origin of these elements themselves by emanation from the indefinite.

The metaphysical theory of emanation, as a solution of the problem of the origin of the world, is opposed to the rival metaphysical theory of ordering, usually attributed to Anaxagoras and Plato, according to which God creates the world by imposing order on a preexisting chaotic matter. According to the latter theory, before the creative event there exist two principles, God and chaos.[24] According to the theory of emanation, before the event of emanation there exists only God (the indefinite), and therefore he is the sole cause (*τὴν πᾶσαν αἰτίαν*), both sufficient and necessary, of the universe.

The theory of emanation is also opposed to the primitive theory, found in Hesiod's *Theogony*, of the evolution of the universe out of chaos. The latter theory agrees with the theory of emanation in teaching that before the event there exists only one principle, namely chaos, which might seem to be indistinguishable from Anaximander's indefinite. But the two theories disagree radically in that for Hesiod chaos is transformed into cosmos, so that there is no more chaos after the universe has evolved, whereas for Anaximander the indefinite is nowise destroyed or even decreased by the emanation of the universe from it. Emanation is not a physical process, and the physical law of conservation does not apply to it. Anaximander taught that the indefinite is also infinite (*ἀπέραντόν ἐστιν*) and that it must be so in order that the generation of things may not fail (*ἐλλείπῃ*).It continues to exist, undiminished, and to encompass (*περιέχειν*) and rule (*κυβερνᾶν*, literally "steer") the universe (*ἅπαντα*).

The theory of emanation should probably also be opposed to the Augustinian doctrine of creation ex nihilo, although the distinction is elusive; for both theories, before the event God alone exists, and after the event God exists unchanged along with a world which owes its existence to him.[25]

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[24] Aristotle's metaphysics also, although involving no beginning of the world, is logically analogous to this, with potency playing the role of chaos.

[25] According to Erigena, the doctrine that God made the world out of nothing means that he made it out of himself, since he is nothing (Pat. Lat. 122, 680D, 683B).

Very similar to Anaximander's doctrine, however, is Plotinus's theory of the origin of all things by emanation from the ineffable One [26] which transcends all definite ideas. Both in its intrinsic nature and in its relation to the universe, Plotinus's One seems to be indistinguishable from Anaximander's indefinite. It is the eternal and indefinable God from which all things arise by emanation and to which (as we shall see) all things tend to return. The final formulation of classical Greek philosophy by the last pagan philosopher is based on the same concept of emanation taught by Anaximander. In Plotinus Greek philosophy, enriched by the works of Plato and Aristotle, returned to the basic doctrine (rejected by them) of its founder.

(4)[27] Anaximander also taught that all things revert to (literally, "have their destruction into") the indefinite deity from which they emanate, thus completing his theory of emanation by an eschatological doctrine unusual in classical Greek philosophy. While Plato and Aristotle taught that all things, in some sense, seek God, Anaximander taught that all things actually return to God. Since this source to which they return is the indefinite, their return is their destruction, just as their emanation is their production. It follows that all things, and the world as a whole, are perishable (*φθαρτὸν τὸν κόσμον*).

This doctrine suggests a theory of cosmic cycles, and, according to a statement in the *Stromateis* attributed to Plutarch, this is what Anaximander taught. The indefinite is the sole cause not only of generation but also of destruction. "From it emanated (*ἀποκεκρίσθαι*) the heavens and in general all the worlds, which are infinite (*τοὺς ἁπαντας ἀπείρους ὄντας κόσμους*)." This infinite series of worlds would seem to mean a temporal succession of cosmic cycles — although Burnet, who needs an infinite number of worlds to fill the infinite space he attributes to Anaximander, interprets it as meaning an infinite number of coexisting universes which we see as the stars. The Plutarchian fragment continues: "He declared that destruction

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[26] Anaximander also called the indefinite "one" (*ἕν* or *μίαν*).

[27] Sources: Diels 12 A 10, 17, B 1.

(*τὴν φθορὰν*) and, long before (*πόλυ πρότερον*) [that is, presumably, in each cycle], generation (*τὴν γένεσιν*) have taken place (*γίνεσθαι*) since an indefinite time (*ἐξ ἀπείρου αἰῶνος*), all these being cyclical (*ἀνακυκλουμένων πάντων αὐτῶν*)." This might mean that the universe as a whole is destroyed, and then, after an intervening period during which nothing but the indefinite exists, a new universe emanates, to be destroyed in its turn, and so on forever. Or it might mean that some things emanate while others are destroyed, so that some things are always in existence. The appearance in Anaximander's book of the cosmogonic doctrine mentioned above, even though its details cannot be reconstructed, would seem to support the former interpretation, and so to justify us in attributing to Anaximander a doctrine of cycles. The only clue to the duration of the cycle is the vague phrase "long before."

There is a striking similarity between the metaphysics of Anaximander's book, as reconstructed from the references, and that of John Scotus Erigena's *De Divisione Naturæ*, although Anaximander presents only the fundamental principles of the system, while Erigena develops it in great detail. This comparison is especially interesting in view of the positions of these two authors in the history of philosophy. Anaximander, the first metaphysician, stands at the beginning of ancient western philosophy. Erigena stands at the end. His book, a systematic synthesis of the most profound insights of the philosophers, both Greek and Latin, both pagan and Christian, of the preceding fifteen centuries, terminates the epoch of ancient philosophy, an epoch dominated by an interest in metaphysics. (He is followed by the philosophically sterile tenth century, and then by the new epoch of medieval and modern philosophy, dominated not so much by metaphysics as by epistemology). The outline of principles around which Erigena's vast synthesis is constructed is exactly the doctrine of Anaximander: [28] God, definable only as being undefinable, the source from which all things come into being and into which they are reabsorbed. The first

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[28] Not, of course, that there was any direct influence.

book of ancient philosophy was a first draft of that book which was to be the final and full summary of ancient philosophy.[29]

(5)[30] Anaximander introduced into Greek philosophy the concept of natural law. This is found in the one extant sentence from his book, quoted above, in which he explains the reason why all things which come into existence must also, "by necessity," pass out of existence, returning into the indefinite from which they emanate: "For they render to each other[31] retribution and atonement for their injustice in the order of time."

We usually think of the word *law* as having two meanings, descriptive scientific law and prescriptive moral or legal law — meanings so distinct that the word is a perfect homonym. Anaximander has a primitive concept of law in which these meanings are not yet differentiated. The law of the destruction of all things by return into their source is descriptive and scientific in that it applies universally and inevitably. But it is moral in that it is based on the fact of a moral vice, "injustice" (**τῆς ἀδικίας**), which deserves punishment, "retribution and atonement" (**δίκην καὶ τίσιν**).

The meaning seems to be that existence as a definite being is itself unjust. We are encroaching on each other by our ex-

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[29] There is a striking parallel between the history of ancient philosophy in Europe and in India. The earliest statement of the Vedanta philosophy is in the Upanishads, the oldest known Hindu metaphysical books, which are more or less contemporary with Anaximander, and the doctrine of which is very much like that of Anaximander. The most fully developed statement of the Vedanta philosophy is in the writings of Shankara, who is approximately contemporary with Erigena, and whose system is very like his. There seems, however, to be no demonstrable influence of either of these developments on the other, although perhaps this problem has not been sufficiently studied.

[30] Source: Diels 12 B 1.

[31] There is an interesting variant reading in this crucial sentence from Anaximander's book. The first edition omits the word **ἀλλήλοις** ("to each other"). The editors of the later editions have inserted the word as being supported by the best manuscripts. While the emendation is presumably correct, it seems exaggerated to suggest (as Burnet does) that it makes a scientific theory out of what, without the emendation, was a "fanciful interpretation." Without **ἀλλήλοις**, the sentence would seem to mean that existence is a crime; with it, that existence is a tort.

istence. Injustice is lacking only in the eternal indefinite. "In the order of time" (*κατὰ τὴν τοῦ χρόνου τάξιν*), that is, in the temporal world of definite beings, we compete for place. This unjust encroachment calls for retribution. We can atone for our coming into existence only by passing out of existence again, and the eternal law assures that we do so.

This concept of natural law is quite different from the Homeric concept of destiny, an arbitrary or at least inscrutable fate different for different beings; Anaximander's law is universal, intelligible, and eminently just — coming into being must be made up for by its exact equivalent, passing out of being. It is radically different from the Christian concept of original sin, according to which injustice, far from requiring, actually prevents the return of the creature to its source. It is like the Hindu principle of karma in that it combines scientific and moral law in a single concept. It is reminiscent of the Buddhist doctrine that all existence is suffering, but differs from this in two ways: while both Buddhism and Anaximander disapprove of existence, the former does so on hedonistic grounds, the latter on strictly moral grounds; [32] and Buddhism denies the inevitability, though not the desirability, of our eventual non-existence.

This ethical doctrine sounds strange today, when we hear so much about our alleged natural rights. According to Anaximander the only right we have is the right to perish. Nobody and nothing has a natural right even to exist. Existence is a wrong, and it must be atoned for. To be ourselves is an offense against our fellow beings; to lose ourselves in God is our natural right and our common destiny.

(6)[33] Anaximander founded scientific cosmology by his theory that the earth is a heavenly body (*τὴν δὲ γῆν εἶναι μετέωρον*).

There have been, in the history of science, four principal theories of cosmology. The oldest, already established at the

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[32] Vedanta disapproves of individual existence on scientific grounds, as being illusion.

[33] Sources: Diels 12 A 10, 11, 26, B 5.

beginning of history, is the common sense view which regards the earth as a fixed body, firmly supported (although on what, was always a moot question), with a flat surface, and covered by the dome of the sky. The stars are thought of as lights on the sky or as holes through which a supercelestial light is seen. The sun moves across the sky every day and returns to the east by night, passing either below the ground (the Egyptian theory) or above the sky (the Babylonian theory) — thereby giving those regions their fair share of illumination. Such a cosmology, however primitive, is quite compatible with a considerable amount of detailed astronomical knowledge, as seen in the quite advanced astronomical science of the Babylonians. The second cosmology is that which, while still thinking of space in terms of absolute directions up and down, frees the earth from its support and conceives it as a heavenly body existing unsupported in space just like the other heavenly bodies. The sky ceases to be thought of as a hemispherical firmament and becomes an imaginary celestial sphere on which we project the heavenly bodies which really exist at different distances.[34] The third cosmology is that which makes the earth a sphere, places it at the center of the universe, and defines "down" as toward this center. The fourth and still current cosmology is that which describes the spherical earth as itself moving, and so explains the apparent motion of the other heavenly bodies as being partly due to the actual motion of the earth from which they are observed.[35]

The passage from one of these cosmologies to the next is an act of genius requiring the rejection of established common sense and the introduction of a new category of thought. These three steps are the great events in the history of cosmology and, since cosmology is concerned with the nature of the universe and man's place in it, among the most important events

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[34] There is logic, whether or not historical truth, in the tradition according to which Anaximander, the founder of this cosmological theory, made the first model of the celestial sphere. It is possible that the construction of the model may have led him to the theory.

[35] The contemporary views associated with the theory of relativity might be added as a fifth cosmology.

in the whole history of science. The first step, involving the greatest break with common sense, was the most difficult.

This first step was taken by Anaximander.[36] Both Aristotle and Hippolytus attribute it to him, and nobody attributes it to any earlier thinker. Even Thales held to a variant of the primitive cosmology, if Aristotle is right in saying he taught that the earth floats on water. In order to attain this insight Anaximander had to repudiate the evidence of the senses, which show us the solid earth fixed below and the heavenly bodies moving over the surface of the sky above — to say nothing of religious dogmas which had from time immemorial been formulated in terms of this cosmology. He had to do violence to that egocentric form of intuition which builds the universe around the observer, and progressive emancipation from which makes up the progress of science. Anaximander did not, however, free himself from the intuition of absolute up and down. This second step, associated with the theory that the earth is a sphere, followed soon after, being first taught, so far as we know, by the Pythagoreans. This step involved the paradox that "down" is toward the center of the earth, and therefore that the direction which is down for one person may be up for another. The third step, with its final offense to common sense, was the passage to the theory that the spherical earth itself moves, and so that not only is the direction down relative to a center of attraction but this center itself is not fixed. This theory was first proposed in the Pythagorean school in connection with the hypothesis of a central fire as the center of the earth's revolution. As this ingenious hypothesis did not prove useful, scientists, notably Aristotle, reverted to the third cosmology, that is the geocentric theory, in terms of which the astronomer Eudoxus had given a mathematical analysis of planetary motion. The heliocentric form of the fourth cosmology was proposed by Aristarchus. In spite of his cogent arguments for it,

[36] It must be conceded that Anaximander was a rather indifferent astronomer. He completely misunderstood such elementary things as the cause of the moon's phases and the cause of eclipses. It is interesting to observe that this great achievement in cosmology was made not by an astronomer but by a metaphysician.

later astronomers, following Hipparchus, felt obliged to reject it, not only because of its repugnance to common sense but also because of such scientific considerations as the apparent lack of parallax of the fixed stars. The fourth cosmology was not popularly accepted until Copernicus, and not satisfactorily justified until even later, when more precise techniques of measurement revealed the true parallax of the nearer stars.

Anaximander, then, deserves the credit for taking the first step in the history of scientific cosmology. But he took the first step only. He still thought of the earth as flat, with a horizontal surface. Consequently he taught that the earth is cylindrical in shape, "like a stone column." We live on one of its flat surfaces. The opposite surface is underneath; presumably he supposed that anyone on that surface would fall off, although the sources do not discuss this question. He even had a theory of the proportions of the earth, stating that its altitude, or distance between the two flat surfaces, is one third of its diameter. Presumably he had some opinion concerning its size (especially if it is true that he made a map of the earth), but this has not been preserved.[37]

The theory that the earth is an unsupported heavenly body completely surrounded by empty space raises the problem of why it stays where it is. Anaximander solved this problem by saying that the earth, although supported by nothing (*ὑπὸ μηδενὸς κρατομένην*), stays still because of its equal distance from all things (*μένουσαν δὲ διὰ τὴν ὁμοίαν πάντων ἀπόστασιν*). There is a certain vagueness about this; indeed, the problem of explaining the position of an unsupported earth in a space

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[37] His opinion, if any, concerning its size could only have been a guess, since a correct calculation of the size of the earth presupposes a correct understanding of its spherical shape. Its size was first calculated accurately by Eratosthenes, over three centuries later. The map of Hekataeus, whose knowledge extended from the Pillars of Hercules to the Indus, presumably represented the earth with a diameter of approximately 4,500 miles, but the admittedly inferior map of Anaximander, made not by a geographer but a metaphysician, may have represented it much larger or much smaller. Herodotus (IV 36) ridicules map makers who make "the earth itself to be an exact circle as if described by a pair of compasses."

of absolute up and down is a difficult one. Aristotle interprets Anaximander's theory as meaning that the earth moves neither up nor down nor sideways because, being at the center, it is constrained by indifference (ὁμοιότητος), having no tendency to move one way rather than another — like a hair which, stretched strongly but evenly at every point, cannot break, or a man who, equally hungry and thirsty, and equally distant from food and drink, cannot move.[38] However unsatisfactory Anaximander's solution may be, he squarely raised, and so far as we know he first raised, the problem of explaining the earth's position in space in cosmical or astronomical terms rather than by an uncritical analogy with things on the earth.

(7)[39] Anaximander first gave a true perspective on the physical universe and the earth's place in it by his statement that the sun is equal to the earth in size. To the modern reader this may seem an understatement, the error being in fact over 99%, but when we consider that over a century later Anaxagoras was prosecuted for saying the sun was as big as the Peloponnesus, we realize that Anaximander's estimate of its size was a creditable first approximation to the truth. It is the realization that the earth is not the biggest thing in the universe, rather than an accurate determination of the sun's size, which is important.

Anaximander's rejection of the primitive cosmology made it impossible for him to think of the sun as a disk attached to the surface of the sky. But his failure to advance to the third cosmology prevented his regarding the sun as a body occupying its own natural place at a certain distance from the universal center of gravity. Since he said the earth held its place because of its equal distance from all things, he would presumably have expected an unsupported body at the sun's place, not being equidistant from all things, to fall away from that place. Conse-

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[38] *De Caelo* 295b. Aristotle criticizes Anaximander's theory in favor of his own theory that the earth stays at the center because that is its natural place. But Aristotle was thinking in terms of a spherical earth, and so did not have Anaximander's problem.

[39] Sources: Diels 12 A 11, 18, 22, B 4.

quently he could not consistently think of the sun as a body at all. He solved this problem by an ingenious theory of the sun's nature which, however fantastic it may seem to us, was consistent with his cosmological system. In doing so he showed a truly scientific attitude in following a scientific hypothesis rather than the obvious appearances.

According to Anaximander's theory the real sun is a hollow hoop filled with fire and having an opaque covering which makes it invisible.[40] The apparent sun is a circular hole in this covering through which the fire is seen. Accidental closing of this hole causes eclipses. Rotation of the real sun about its center at the earth causes the revolution of the apparent sun about the earth. Presumably it is the apparent sun, that is the hole, which is referred to when the sun is said to be equal in size to the earth.

He said that the size of this hoop is 27 times the size of the earth. If we interpret this as meaning that the hoop's diameter is 27 times the earth's diameter, it follows that the apparent sun's distance is 27 times the earth's radius. While this again is a gross underestimate from the point of view of modern astronomy, it is a great advance over the primitive view which, confining the sun within the celestial dome, would make its greatest possible distance from the earth's center equal to the earth's radius. Anaximander took the first step which led ultimately to the modern theory of the great distance of the heavenly bodies.

If our sources are correct in attributing to Anaximander both the statement that the sun's diameter is equal to the earth's diameter and the statement that its distance is 27 times the earth's radius, he would seem to have committed a boner. While it is difficult to calculate the sun's size or distance, and we can only admire Anaximander for estimating them as well as he did, it is easy to calculate the ratio of the sun's distance to its diameter. The sun's angular diameter is about half a degree, and consequently its distance is approximately 100

[40] There is no reason to suppose that Anaximander observed the zodiacal light, but it would strongly support his hypothesis.

times its linear diameter. If it were only 13½ times, the angular diameter would be about four degrees and the sun would appear eight times as big at it actually does.[41] There seems to be no way of explaining this discrepancy between fact and theory, and probably Anaximander never gave it a thought.

The moon is explained by a similar hoop only 19 times as big at the earth. Its phases and eclipses are due to the closing of the aperture through which the inner fire is seen. Other hoops, smaller and so nearer than that of the moon, explain the stars and planets.[42] All the heavenly bodies are described as hollow hoops "like a chariot wheel" filled with fire and "breathing out flames" through orifices "like the air from a flute." We see in this hypothesis the earliest known formulation of what later developed into the theory of celestial spheres.

The theory that the stars are nearer than the sun and moon strikes the modern reader as preposterous, opposed as it is not only to modern astronomy but even to the later ancient astronomy. But this theory, while of course false, is nowise absurd or fantastic. The determination of the relative distances of the heavenly bodies is a very difficult task; until quite recently astronomers believed comets to be meteorological phenomena within the earth's atmosphere. The Babylonians thought of the

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[41] A variant source has the sun's hoop 28 (instead of 27) times the size of the earth, and this has been explained by the suggestion that 27 refers to the inner and 28 to the outer surface. If the hoop is a true anchor ring, its thickness must equal its width (the diameter of the apparent sun, equal to the diameter of the earth), and so, if the above suggestion is correct, the hoop's radius is 27 times the earth's diameter (not radius), the sun's distance twice as great, and Anaximander's error only half as great. But if the hoop's inner and outer diameter (not radius) are 27 and 28 times the earth's diameter, then the hoop is flattened, only half as thick as wide. This would be consistent with a reference which describes the celestial hoops as being "like chariot wheels." Zeller, following a reference which, if not emended, makes the sun's hoop 27 times as big as the *moon's*, suggests that Anaximander may have made the size of the sun's orbit 513 times that of its disk; in which case its distance would be 256½ times its diameter, and it would appear approximately half (instead of eight times) as big as it actually does.

[42] It is not clear whether there is a hoop for each star, or whether one hoop can have several holes.

sun as beyond the stars during its nocturnal motion, and neither reason nor appearance suggests that the stars must be more distant than the sun or moon. To Anaximander they seemed relatively near, while the mighty sun seemed to be the most distant, as well as the biggest, of all heavenly bodies.[43]

(8)[44] Anaximander founded physiological psychology[45] by his theory that the soul is *airy*[46] (**ἀερώδη τῆς ψυχῆς τὴν**

[43] The theory that the sun, 27 earth radii distant, is the most distant object in the universe, although consistent with all facts known to Anaximander, is quite incompatible with Burnet's theory that the **ἄπειρον** means infinite space. "Anaximander had shaken himself free of the old idea that the heavens are a solid vault. There is nothing to prevent us from seeing right out into the Boundless, and it is hard to think that Anaximander did not believe he did. The traditional cosmos has given place to a much grander scheme, that of innumerable vortices in a boundless mass, which is neither water nor air. In that case, it is difficult to resist the belief that what we call the fixed stars were identified with the 'innumerable worlds' which were also 'gods'." (*Early Greek Philosophy*, 3rd ed., p. 69.) The statement that the stars are nearer than even the moon presents a serious difficulty for Burnet's view. He solves this by the hypothesis that the word "stars" refers not to the fixed stars but to the morning and evening stars. "What, then, are the 'stars' which are accounted for by this inner wheel? I venture to suggest that they are the morning and the evening stars, which, we have seen, were not recognized yet as a single luminary." (*Ibid.*, p.69.) This gratuitous suggestion has no ground whatever except Burnet's necessity of following his own explanation of the **ἄπειρον**. The relevant reference, in Burnet's own translation, reads as follows: "The sun is the highest of all, and lowest are the whells of the stars." (*Ibid.*, p. 67.) In all the source books, including that cited here by Burnet himself (Ritter and Preller, 8th ed., p. 17), the original of this (Diels 12 A 11) reads **καὶ ἀνωτάτω μὲν εἶναι τὸν ἥλιον, κατωτάτω δὲ τοὺς τῶν ἀπλανῶν ἀστέρων κύκλους**. Burnet, in translating omitted (without comment) the word **ἀπλανῶν** (fixed) which disproves his interpretation of Anaximander's cosmology and with it his interpretation of Anaximander's metaphysics.

[44] Source: Diels 12 A 29.

[45] The scientific character of his psychology is striking when it is compared with Thales's psychological theory, "All things are full of gods."

[46] This notion appears, probably earlier and certainly independently, in the Old Testament concept of *ruach*; but it was the Greeks who developed it scientifically. For the O.T. use, see Hastings' Encyclopaedia of Religion and Ethics, article "Spirit."

φύσιν). No details are added, and this single statement is all we know of Anaximander's psychology.

While it may seem forced to attribute this doctrine to him on the evidence of a single word in a single sentence,[47] the prevalence of the doctrine among the later Ionian scientists makes it very plausible that he should have taught it, and the question seems to be not so much whether he did teach this theory as whether he was the first to teach it. But the credit must be given to the first teacher known to us, and, however many predecessors he may actually have had, Anaximander is the first person to whom our extant sources attribute the pneumatic theory of the soul.[48]

This theory was destined to be one of the most fruitful hypotheses in the whole history of science. It superseded the primitive theory, well known from Homer and the Old Testament, that the essence of the soul is the blood. Anaximenes [49]

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[47] And this not too well vouched for, his name being found (in inexplicably unchronological order) in a list of pneumatic psychologists excerpted from Aetius by Theodoret, but omitted in a corresponding excerpt by Stobaeus. This led Bäumker to reject it (Jahrbücher für Classische Philologie herausg. von A. Fleckeisen, 1885, p. 828, n. 7). For the sources see Diels, *Doxographi Graeci*, 2nd ed., p. 387.

[48] According to Aetius (*Dox. Gr., ibid.*), Thales first taught immaterialistic, and Anaximander materialistic, psychology.

[49] Anaximenes of Miletus, like Anaximander, wrote a book which is extant in one sentence only but the doctrine of which can be partially reconstructed from ancient references (collected in Diels, *Fragmente der Vorsokratiker*, 5th ed., vol. 1, sec. 13). In view of the uncertainty of his dates we do not know whether he could have been personally acquainted with Anaximander; but since he was at any rate younger than Anaximander (as all authorities agree), it is reasonable to suppose that he was acquainted with his famous fellow citizen's book and would have been influenced by him through it.

This influence is most apparent in his psychology. He repeated Anaximander's statement that the soul is airy, introduced the word πνεῦμα to describe it, and apparently was influential in establishing the pneumatic psychology. But Anaximenes gave it a cosmic application, saying (the extant sentence, Diels 13 B 2), "As our soul, which is air (ἀὴρ) holds us together (συνκρατεῖ ἡμᾶς), so do breath (πνεῦμα) and air (ἀὴρ) encompass περιέχει a word applied by Anaximander to the ἄπειρον) the whole word (ὅλον τὸν κόσμον)." His cosmology is also like Anaximan-

developed this theory, brought it into harmony with his general scientific system, and introduced into psychology, as a synonym for ἀερώδη, the technical term πνεῦμα (literally *breath*), equivalent to Latin *spiritus* and English *ghost*. Heraclitus distinguished qualities in the soul thus conceived as a gas: the dry or fiery and therefore more rational, and the wet or watery and therefore less rational. The physiologist Diogenes of Apollonia called mind (νόησις) an attribute of air, and explained the mental differences between individuals and between species in terms of the quality of the air which constitutes their

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der's in that he describes the earth as flat "like a table" and resting only on air, which is compressed by the weight of the earth and so keeps it from falling. But he considers the sun, moon, and planets to be flat "like leaves" and therefore held up by the air, while the stars are said to be fixed "like nails" in the crystalline heaven.

It is in physics, however, that Anaximenes is preeminent. He explains all physical transformations of one kind of matter into another by the mechanical process of condensation and rarefaction of the same continuing matter. This underlying matter appears in its natural state as the *air* which surrounds us — infinite in extent (τῷ μὲν μεγέθει ἄπειρον) but definite in qualities (ταῖς δὲ περὶ αὐτὸν ποιότησιν ὡρισμένον). It differs in rarity and density (μανότητι καὶ πυκνότητι) "according to the essences" (κατὰ τὰς οὐσίας) of the things it becomes. Air expanded becomes fire. Air condensed becomes wind; still more condensed, cloud; then water; then earth; finally stone. From these, and so ultimately from air, all things, even the gods and divine entities (καὶ θείους καὶ θεῖα), are made — whence air is called the source of things (ἀρχὴν τῶν ὄντων). "Out of it all things arise (γίγνεσθαι) and into it they are resolved again (πάλιν ἀναλύεσθαι)." All natural phenomena — winds, clouds, rain, hail, snow, lightning, rainbows, earthquakes — are explained in terms of this mechanical process. The motion (κίνησις) responsible for these transformations is eternal (ἀΐδιον) and has always existed (τήν γε μὴν κίνησιν ἐξ αἰῶνος ὑπάρχειν).

Thus we see that Anaximenes taught the explanation of physical phenomena in terms of quantitative changes of the primary qualities — like the ancient atomists and modern scientists. Anaximander, so far as we can judge from obscure sources, taught the explanation of physical phenomena in terms of qualitative changes — like Aristotle and medieval alchemists. In this field Anaximenes is far superior to his predecessor. In the field of metaphysics, so far as our sources inform us, Anaximenes taught nothing (and so, perhaps, was the first positivist; the three Milesians are a good example of Comte's three stages of knowledge). If Anaximander was the founder of metaphysics, Anaximenes holds an equally distinguished position as the founder of scientific physics.

souls. The atomists and Epicureans identified soul with the purest gas composed of the smallest, roundest, and smoothest atoms. The physician Galen distinguished four kinds of liquid (the four "humors") and three kinds of gas in the body; the latter are the natural spirit (*πνεῦμα φυσικόν*) circulating in the veins, the vital spirit (*πνεῦμα ζωτικόν*) in the arteries, and the psychic spirit (*πνεῦμα ψυχικόν*, Latin *spiritus animalis*) in the nerves. His physiological theory, in which mental phenomena are explained by the "animal spirits" (*πνεῦμα ψυχικόν*) in the nervous system, dominated scientific psychology for many centuries. The pneumatic hypothesis also explained the phenomena of abnormal phychology in terms of demonic or divine *inspiration* (literally understood). It was even extended to Christian theology[50] by the anthropomorphic doctrine (expressed in terms of the scientific psychology of the apostolic period) of the Holy Πνεῦμα (English *Ghost*).[51]

While this theory continued to dominate scientific thought, the opposed Platonic theory of an *immaterial* soul, championed by Augustine, came gradually to dominate religious thought. Descartes harmonized the two theories by his doctrine of two substances, explaining all psychic phenomena in the human or animal body in terms of the animal spirits, and consciousness (attributed to humans only) in terms of the immaterial "thinking thing." This compromise was followed by Locke.

With the invention of the microscope, which revealed that the nerves are not hollow tubes but solid wires, the pneumatic theory collapsed. Hartley interpreted nervous activity in terms of vibrations of the nerves, while more recent neurologists have described it in terms of electric currents[52] in the nerves.[53] But, even though now obsolete, the long held Anaxi-

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[50] Also the theology of the mysteries (R. Reitzenstein, *Die Hellenistische Mysterienreligionen*, 3rd ed., pp. 308ff).

[51] But liturgy, always more conservative than theology, continued (and still continues) to be dominated by the primitive blood theory of the soul.

[52] Cf. Boring, Langfeld, and Weld, *Introduction to Psychology*, p. 231: "The active region of the neuron fiber is electrically negative in relation to the unexcited portion of the same fiber." The free electrons (small, unat-

mandrian-Galenic theory that the soul is spirit has left an indelible mark on our language. Keeping the words of the pneumatic theory even when we have abandoned the theory itself, we still call the soul a *spirit*, reinterpret the word *spirit* to mean an immaterial being, and make *spiritual* a synonym for immaterial.

These eight contributions to philosophy and science form an impressive total. We might add, as a ninth contribution, the concept of a system of philosophy, since Anaximander's book is the first in the long series of systematic treatises in the history of western philosophy. While his metaphysical doctrine seems to have had little immediate influence in the presocratic period, all his metaphysical ideas came eventually to occupy prominent positions in later philosophical thought. Both for his historical importance as the founder of Greek metaphysics and for the intrinsic value of his doctrine itself, Anaximander holds an honorable place among those intellectual and spiritual teachers in many parts of the world who made the sixth century B.C. the golden age of philosophy.

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tached, and swift), the motion of which constitutes an electric current, seem very similar in definable properties to Lucretius's small, unattached, swift "soul atoms."

[53] Recent observations with the electron microscope have shown that nerve fibers really are hollow tubes (approximately six millionths of a centimeter in diameter) after all. (DeRobertis and Schmitt, "An Electron Microscope Analysis of Certain Nerve Axon Constituents," Journal of Cellular and Comparative Physiology, vol. 31, No. 1, Feb. 1948, p. 3: "The available evidence is consistent with the view that they are tubular, possessing a thin wall of relatively high electron density and a core of low destiny." I am indebted to Prof. G. A. Edwards of the Tufts Biology Dept. for this reference.)

ANSELM'S ONTOLOGICAL ARGUMENT: RATIONALISTIC OR APOLOGETIC?

In this paper I propose to consider two possible interpretations of Anselm's ontological argument. According to the first interpretation the argument is purely rational; according to the second, reason *and* faith together form the foundation of the argument.

The ontological argument, as understood by the first interpretation, runs as follows: The concept of God is the concept of a being than which nothing greater can be conceived. This latter concept includes the concept of a being which exists necessarily, for necessary existence is one of the perfections of an absolutely perfect being; that is, the concept of God is the concept of a being which exists necessarily. God then must be conceived as existing necessarily, and hence we must attribute to his essence necessary existence. According to the first interpretation, this inference from concepts alone constitutes the whole of the ontological argument. The argument is thus analytic and purely rational.

The second interpretation to be considered here admits the correctness of this interpretation, so far as it goes. Reason can proceed to the required conclusion in the way suggested by the first interpretation, but only upon a prior basis given by faith. According to this interpretation, Anselm's attitude is radically misunderstood if it is thought of as being purely philosophical and theoretical. His real aim is practical, polemical, apologetic. He is engaged in combatting scepticism — the scepticism of the fool who says in his heart, "There is no God". Against this position Saint Anselm advances the view that not only does God exist, He exists with an absolute necessity which excludes the possibility of His being even *conceived*

correctly as possibly not existing. In pursuit of such a purpose Anselm might legitimately use any order of cognition he thought sound and he might therefore be expected to depend on faith at least in part; only had his end been pure philosophic speculation would such an appeal to the supra-rational have been out of court.

We may consider the evidence in the text for this second interpretation of Anselm's argument. In the first place the interpretation seems to receive support from Chapter II of the *Proslogium*: Quod vere sit Deus, etsi insipiens dixit in corde suo: *Non est Deus*. This title would seem to suggest that the chapter is intended as a piece of Christian apologetic; and the suggestion is especially important because this chapter contains what the first school of interpretation regards as the essence of the ontological argument.

The argument as well as the title of the chapter suggests an apologetic purpose. Anselm first states what he would like to believe:

> Ergo, Domine, qui das fidei intellectum, da mihi, ut, quantum scis expedire, intelligam quia es, sicut credimus; et hoc, quod credimus. Et quidem credimus te esse aliquid, quo nihil majus cogitari possit.[1]

Then Anselm states the purpose of his ontological argument — to maintain this position against the doubt raised by the atheist:

> An ergo non est aliqua talis natura, quia *dixit insipiens in corde suo: Non est Deus* ?[2]

In the rest of this chapter Anselm is concerned to answer the fool. Thus his animus is that of a Christian apologist, not that of a philosopher pure and simple.

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[1] *Patrologiæ latinæ*, Migne, tom. CLVIII. col. 227.
[2] *Ibid.*

The same conclusion is suggested by the preceding chapter, which is not to be understood as having no relation to the argument from the idea of God which follows this chapter. The concluding passage is especially significant:

> Non tento, Domine, penetrare altitudinem tuam; quia nullatenus comparo illi intellectum meum, sed desidero aliquatenus intelligere veritatem tuam, quam credit et amat cor meum. Neque enim quæro intelligere, ut credam; sed credo, ut intelligam. Nam et hoc credo quia nisi credidero, non intelligam.[3]

This attitude seems clearly to be that of a *defensor fidei* — a defender whose apologetic proceeds rationally from faith, not by reason alone. It is not likely that, after thus making faith fundamental to reason, Anselm immediately went on to present his ontological argument as a purely rational argument; if such an interpretation is made, it requires special evidence.

The relations of the passage quoted to what goes before it should also be noticed. The passage is the culmination of a section which shows that the ontological argument is in part the product of anguish and prayer:

> Quid faciet, altissime Domine, quid faciet iste tuus longinquus exsul ?[4]... Anhelat videre te et nimis abest illi facies tua...
> Heu ! quid perdidit, et quid invenit ??[5]... Perdidit beatitudinem ad quam factus est, et invenit miseriam propter quam factus non est[6]... Doce me quærere te, et ostende, te quærenti; quia nec quærere te possum, nisi tu doceas, nec invenire, nisi te ostendas.[7]

It thus appears to be a mistake[8] to separate Anselm's proof from its history, for its history is in reality an essential part

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[3] *Ibid.*
[4] *Ibid.*, col. 225.
[5] *Ibid.*, col. 225-6.
[6] *Ibid.*, col. 226.
[7] *Ibid.*, col. 227.
[8] As Gilson suggests it is. "Certes, sa formule se déploie tout entière sur le plan de l'entendement, mais c'est le cœur qui l'a trouvée: pour en faire une *res per se nota*, il faut le considérer en dehors de ce qui le prépare et le rend intelligible: purification du cœur, foi, appel à Dieu, illumination de

of it: unless God reveals Himself to us, we cannot truly conceive the necessity of His existence.

In the Preface also Anselm suggests that for him reason is subordinate to faith; here he speaks of himself as having written the *Proslogium* "sub persona... quærentis intelligere quod credit." [9] The same subordination is also suggested by the original title of the *Proslogium*: fides quærens intellectum.[10]

One further consideration seems to suggest that Anselm's ontological argument has a religious basis. In the *Monologium*, where Anselm seems to argue from reason alone concerning the existence of God,[11] he thinks it necessary to preface his treatise by the explicit statement that in this particular work he proposes to use reason alone,

> quatenus auctoritate Scripturæ penitus nihil in ea persuaderetur; sed quidquid per singulas investigationes finis
> assereret, id ita esse plano stylo et vulgaribus argumentis, simplicique disputatione, et rationis necessitas breviter cogeret, et veritatis claritas patenter ostenderet.[12]

But in the *Proslogium* Anselm makes no such statement. Instead, he begins with prayer and supplication, and it seems that he thus proceeds because he has found the rationalistic method of the *Monologium* to be inadequate. Hence his desire for something better:

> ... cœpi mecum quærere si forte posset inveniri unum argumentum, quod nullo alio ad se probandum, quam se solo indigeret: et solum ad astruendum quia Deus vere est...[13]

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la pensée par grâce. La *res per se nota* que critique la Somme, c'est la peau morte de l'argument de saint Anselme, ce qui en reste lorsqu'on l'isole de son milieu naturel, l'augustinisme, pour le transporter dans l'intellectualisme de saint Thomas" (É. Gilson, *Études sur le rôle de la pensée médiévale dans la formation du système cartésien*, p. 218).

[9] *Patrologiæ latinæ*, Migne, tom. CLVIII. col. 224.

[10] *Ibid.*, col. 225.

[11] Chapters I — V.

[12] *Ibid.*, col. 143.

[13] *Ibid.*, col. 223.

The *unum argumentum* of the *Proslogium* satisfies Anselm because it is not a merely rational argument, such as those of the *Monologium,* but is rather a rational working out of what is implied in the certitudes of faith.

The crux of Anselm's argument, therefore, seems to be this: the argument is not about the *concept* God, but about His *idea,* which is something very different. Anselm does not argue from the concept of God as an absolutely perfect being to the concept of God as a being which cannot be conceived not to exist. Rather, when he has a clear and distinct idea of the essential nature of God — obtained through purification and the grace of God — he is able to affirm that His nature is such as to involve His necessary existence. The fool is such, not because he does not have a concept of a necessary being, but because he does not have an idea of such a being — he is a fool because he is a conceptualist. It is true that Gaunilon and Kant, among others, consider Anselm to be a conceptualist and condemn his argument on the ground that it argues from a mere concept to real existence. But one may ask whether such critics have not read their own theory of universals into Anselm. If it be agreed that Anselm stands in the Platonico-Augustinian tradition [14] and that both Plato and Augustine are strong anti-conceptualists who regard all true knowledge as a mental apprehension of what is *not* mere concept, one may well wonder at the frequent easy assumption that Anselm's ontological argument is conceptualistic. That interpretation, if it is to be maintained, calls for a special proof demonstrating that in this special case Anselm departs from his general theory.

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[14] I might in particular suggest, although I cannot here work out the suggestion in detail, that Anselm's religious quest for the idea of God rather closely resembles the Platonic Socrates' quest for the divine Ideas.

Anselm does not make the presuppositions of his ontological argument as clear as might be desired, but on the whole the evidence of the text seems to indicate that the argument is best interpreted as being based upon both reason and faith and not upon reason alone.

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THE UNITY OF HUME'S ENQUIRY CONCERNING HUMAN UNDERSTANDING

The interpretation of Hume's *Enquiry Concerning Human Understanding* has been a perplexing problem for many commentators. In spite of Hume's explicit assertion [1] that his later works were to be considered definitive and were to replace the statements made in the *Treatise of Human Nature*, most commentators have chosen to regard the *Enquiry* as a hodge-podge [2] of ideas written by Hume solely to obtain the notice

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[1] David Hume, *An Enquiry Concerning Human Understanding* (La Salle, Illinois: The Open Court Publishing Co., 1945), p. xxviii. All references to the *Enquiry* will be made from this edition. "Henceforth, the Author desires, that the following Pieces (including the *Enquiry*) may alone be regarded as containing his philosophical sentiments and principles."

[2] The tremendous weight of authority against Hume's advertisement makes a defence of his statement appear almost foolhardy. The general belief that the *Enquiry* is at most a group of essays has led most commentators to neglect it. T. H. Green has criticized the *Treatise* elaborately, but has not bothered with the *Enquiry*. Green, *Works*, ed. by R. L. Nettleship (London: Longmans, Green, and Co., 1906), Vol. 1. R. W. Church quotes almost exclusively from the *Treatise*. He mentions only briefly a series of arguments from the *Enquiry* on direct acquaintance of mind with necessary connection. Church, *Hume's Theory of the Understanding* (London: George Allen & Unwin, Ltd., 1935). Also cf. "Hume's Theory of Relations;" *Philosophical Review*: 50: 353-67. H. H. Price finds that the *Enquiry* carries only a mutilated passage on problems dealing with the external world, whereas the major part of the material on this problem is in the *Treatise*. Price, *Hume's Theory of the External World* (Oxford: Clarendon Press, 1940). Sterling P. Lamprecht is "in full accord with the generally accepted judgment that the *Treatise* remains by far the more searching and the more profound of the two works." Lamprecht, "Empiricism and Epistemology in David Hume," *Studies in the History of Ideas*, Vol. II (New York: Columbia University Press, 1925), p. 237, n. 69. But those who have studied it carefully have missed its essential unity evidently. C. W. Hendel believes that Sections VIII through XI are merely essays illustrating and applying the principles developed in prior sections. Hendel, *Studies in the Philosophy of David Hume* (Princeton: Princeton University Press, 1925), p. 288. L. A. Selby-Bigge treats the *Enquiry* as a badly chopped-up job in comparison with the *Treatise*. *Enquiries*, ed. by

which he failed to receive upon publishing the *Treatise*. The commentators have singled out particularly the sections dealing with miracles and a particular providence which did not appear in the *Treatise* [3] as clear evidence of the Enquiry's lack of

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Selby-Bigge (Oxford: Clarendon Press, 2d. ed., 1902) pp. vii-xx. He quotes Grose as regarding the Advertisement as the "posthumous utterance of a splenetic invalid." (p. ix).

The title of Fr. Vinding Kruse's book epitomizes this contemporary bias. *Hume's Philosophy in his Principal Work, "A Treatise of Human Nature" and in his Essays*, trans. by P. T. Federspiel (Oxford: University Press, 1939). Kruse writes: "Hume has both begun and ended his philosophical thinking in the *Treatise*" (he excepts the problems of religion). (p. 65). He also believes that the *Enquiry* has the form of an independent collection of essays. N. G. Jessop, in reviewing this volume (*Mind;* 49: 87-94), agrees with Kruse and the general philosophic opinion that the *Treatise* is the more profound work and questions Hume's judgment in preferring the *Enquiries*. See subsequent notes for further opinions of this nature.

[3] N. K. Smith analyzes the relation of the *Enquiry* to the *Treatise*, but he misses, I believe, the basic difference in orientation by writing "*The Enquiry Concerning Human Understanding*, like the *Treatise*, opens with a statement of the principle that every simple idea must copy an impresion and that complex ideas reduce to simple ideas without remainder." (p. 534). This overlooks Section I of the *Enquiry* wherein Hume lays down explicitly the principles of analysis and the proper subject-matter of philosophy. There is then no need for Hume to treat in a detailed critical manner (as he did in the *Treatise*) doctrines of substance, either material or spiritual (Smith notes that this is left out of the *Enquiry*, pp. 534-535); for he has a positive basis for treating all problems of philosophy. Smith ultimately refuses to decide which of the two works is the best expression of Hume's thought, holding that the *Treatise* is the expression of great genius and the *Enquiry* is an exercise in great self-criticism. This overlooks the positive doctrine of the *Enquiry*. Smith, *The Philosophy of David Hume* (London: MacMillan and Co., 1941). W. B. Elkin has taken this problem (relation of *Enquiry* to *Treatise*) as his special subject. He notes the underlying similarily of doctrine in these two works; yet he has not grasped the positive orientation of the *Enquiry* in its analysis of the human understanding. He also believes that Sections X and XI (miracles and a particular providence) are primarily means for attracting attention (see ftn. 4 below). H. A. Aikins believes Hume's positive doctrines are in the *Treatise* and only the negative hashed-up remains are in the *Enquiry*. *The Philosophy of Hume*, ed. by H. A. Aikins, (New York: Henry Holt and Co., 1893), p. 50.

profundity and organization and of Hume's desire to attain distinction.[4] That the *Enquiry* is, in fact, a systematic exposition of Hume's mature thought, that it displays a remarkable unity of structure, and that Sections X and XI are integral parts of Hume's argument, apparently have not been recognized. And this very fact, that the *Enquiry* has been so thoroughly misunderstood, is in itself a most significant sign of the charac-

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[4] Selby-Bigge writes "... it will be seen that in the *Enquiries*, he made a bold bid for it (distinction) in his quite superfluous sections on Miracles and a Particular Providence." (p. ix). Smith states in his preface to *The Philosophy of David Hume* that he has dealt with Hume's treatment of miracles and religion in his edition of *Hume's Dialogues on Natural Religion*. Thus, he separates spatially and, more important, conceptually two integral parts of the *Enquiry*. Smith, *The Philosophy of David Hume*, p. vii. T. H. Huxley redefines miracles by leaving out the element essential to Hume's argument (the appeal to an outside force or Deity) and then indicates the possibilities of miracles. He can then write that Hume was showing "less than his usual perspicuity" in treating miracles. Huxley, *Hume* (New York: D. Appleton and Co., 1895), pp. 152-164.

A. E. Taylor cites the authority of many interpreters (Green, Huxley, Selby-Bigge) as evidence for Hume's publicity seeking in adding the irrelevant section on Miracles to the *Enquiry*. He then proceeds to analyze this section with little understanding of its true import. Appealing to the principles of Broad (p. 39) and Whitehead (p. 41), he twists the basic arguments in this section of the *Enquiry*. Taylor, *David Hume and the Miraculous* (Cambridge: The University Press, 1927). B. M. Laing recognizes Hume's separation of reason from religion as applicable to the meaning of miracle accepted in his day. He criticizes severely Taylor's treatment of Hume's "On Miracles". But Laing posits as the proper question to Hume's argument, "On what grounds is the difference in the result to be assigned to a divine volition?" (p. 187). Hume, I believe, feels that he has answered this question in terms of the operations of the human understanding. There are no grounds beyond these operations and they allow a dual function in our attempts to "assign a result to a divine volition" (see note 27, below). Laing, *David Hume* (London: Ernest Benn, Ltd., 1932). Hendel has a clear grasp of the argument of Section X (*op. cit.*, p. 296), though he misses its significance as an integral part of the *Enquiry*.

Other general comments on Hume's character are as follows: Mary W. Calkins, *The Persistent Problems of Philosophy* (New York: The Macmillan Co., 1921), p. 191. Calkins believes that Hume's procedure (treatment of God, external objects, and self) awakens a suspicion, not indeed of Hume's personal sincerity, but of his intellectual honesty and of

ter and direction of contemporary philosophy. It is therefore my purpose, first to show that the *Enquiry* is a unified work and further, that the analysis of miracles and a particular providence is basic to Hume's argument. In so doing, I shall also be demonstrating that though the *Treatise* may be the more important work for the history of philosophy, since it criticizes most of philosophy prior to its publication, the *Enquiry* is the

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the value of his teaching. Aikins states that in publishing the *Enquiry*, Hume "had acquired many characteristics of the mere sophist." (*op. cit.*, p. 51). Kruse (*op. cit.*, p. 8) writes that Hume was "possessed by literary ambition to such extent that he set aside all considerations, even the consideration of truth, in order to win favor of the public." The fame of the *Enquiries* made him think them better than the *Treatise*.

But Jessop in his review (cited above) of Kruse's book on Hume points out the adverse criticism and unpopularity of the ideas expressed in the *Enquiry* and Hume's explicit statement of "indifference about all the consequences that may follow" (p. 91) in the publication of the *Enquiry* with its criticisms of miracles and providence. Jessop attributes, and rightly so, as I maintain, Hume's repudiation of the *Treatise* to his honest opinion that the *Treatise* "fell short of his philosophical standards."

Smith also argues that if any passion was involved in the publications of Hume's works, they operated more in publishing the *Treatise* than the *Enquiry*. For Hume admits he cut out the nobler part of the argument (that on religion) in publishing the Treatise for fear of offending some persons. Therefore, the inclusion of Sections X and XI in the *Enquiry* is evidence that Hume was no longer allowing his feelings to prevent him from expressing the whole truth. *Hume's Dialogues Concerning Natural Religion*, ed. with an introduction by N. K. Smith, 2d. ed. (New York: Social Science Publishers, 1948), p. 45. Also note reference made there to *Letters from David Hume*, ed. by J. Y. T. Greig, 2 Vol. (Oxford: 1932), pp. 24-25.

It is not my purpose to rescue Hume's character from the criticism that he was a publicity-seeker. Rather, I am interested in discovering the principles which make his philosophy intelligible, and I believe that within the structure of the *Enquiry* there is good reason for explaining this accusation and nullifying its effect. For the first of the three operations of the human understanding is the arousal of belief or the entertaining of an idea. And Hume must have his ideas entertained as a possible means for explaining the philosophic problems. Certainly every philosopher can be accused of this desire, though perhaps Hume is more honest than most in seeing the relevance of this factor as an actual operation of the human understanding.

more profound and consistent work of philosophy, since it states in a highly generalized and formalized way the basic tenets on which the detailed criticism of the *Treatise* is based. Second, I shall suggest, in concluding, a way of viewing the contemporary branches of philosophy in terms of their relevance to Hume's statement of the philosophic problems and their rejection of his positive contribution.

The body of this paper develops the following subjects, as they are, I believe, the essential elements in the structure of Hume's *Enquiry*:

I. Principles of Philosophy

- A. Subject-Matter — Section I
- B. Method — Section II
- C. End — Section III

II. Application of these principles to the solution of the problems of philosophy.

- A. Generation of Belief
  1. Basis of belief found in man's actions — not in the content or the relations of the ideas believed — Section IV
  2. Meaning of belief found in forceful habit or custom — Section V
  3. Ordering of degrees of belief to operations of human understanding — Section VI
- B. Bases of Instruction (Explanation of Knowledge)
  1. Basis of knowledge (necessary connection of ideas) found in particular impression; i.e., belief in necessary connection established — Section VII
  2. Universality and necessity of this principle of knowledge for all knowing — Section VIII
  3. Ultimate basis of explanation found in application of principle of explanation to itself — Section IX
- C. Reformation of our ideas of the human understanding's operations by applying principles of belief and knowledge
  1. Reformation of basis of belief — Section X
  2. Reformation of basis of knowledge — Section XI
  3. Reformation of all philosophic principles (the bases of reform themselves) — Section XII

These, I believe, are the essential topics in Hume's *Enquiry*. To see how it develops, we must first understand how Hume differentiates his conception of the proper subject-matter, method, and end from those of two inadequate philosophies. The "Easy" philosophy takes as the proper subject-matter the actions of men (man as "born for action" [5]), and has as its end the inculcation of virtue. Its method is that of using striking examples for the inculcation of virtue: that is, "entertainment". The "Hard" philosophy takes as the proper subject-matter, metaphysical speculations about the natures (hidden essences) of man and the external world (man as a "reasonable being" [6] who can discover the natures of things). Its end is absolute truth about these fixed natures. Its method is that of "instruction" or the inculcation of knowledge by long chains of reasoning. An adequate philosophy, so Hume holds, must combine the subject-matter, method, and end of these two species of philosophy. Its proper subject-matter is the human understanding in its rational and volitional operations; for, according to Hume, the human understanding can be understood only as that which is able to know itself as the center of thought and of action.[7] Thought is a kind of action, and action ultimately

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[5] *Enquiry*, p. 1.

[6] *Enquiry*, p. 4. This invalidates Hugh Miller's statements that Hume is a naturalist who accepted "independent and original powers, engaged in real and causal interaction," substances and powers among which the minds and faculties of man can be found. The analogy to Newton's work (*Enquiry*, pp. 11-12) is made in order to indicate what results might be expected by the human understanding's investigation of its own operations. Hume is pointing out here that he has accomplished in the *Enquiry* a degree of generalization and application of his principles which he never achieved in the *Treatise*. Hugh Miller, "The Naturalism of Hume;" *Philosophical Review*: 38: 469-482. Lamprecht attempts to find realistic elements in Hume's thought and exposes the difficulties involved in such attempts from an empiricistic and epistemological position. Sterling P. Lamprecht, *op. cit.*, pp. 219-252.

[7] *Enquiry*, pp. 9-13. J. H. Randall, Jr. has noted these two elements: the practical and the theoretic facets of Hume's thought in his article entitled "David Hume, Radical Empiricist and Pragmatist," *Freedom and Experience* (Ithaca; N.Y.: Cornell University Press, 1947), pp. 289-312.

gets its meaning by being experienced or having been made an object of awareness. The proper end, then, is the continual reflexive development of our understanding of the human understanding and its operations (see below). The proper method is that which allows this continued self-reformation (see below).[8] In this manner, the human understanding can discover what can be known and what can be done; that is, the proper objects upon which the human understanding can and should operate and the proper principles which should guide men to the right acts. This, ultimately, is the meaning of mitigated scepticism; for it must presume that the human understanding can know itself as the principle of operation, or philosophy is totally lost. Its problem, therefore, is to show how this presumption is supported by evidence — by the way the understanding does operate.

The proper philosophic method is one which will allow us to continue to *re-form* our ideas about the operations of the human understanding. It cannot be the mere identification of one situation with another (that is, the use of similarity and argument by example as the Easy philosophers hold). Nor can it be the development of a long chain of reasoning or deduc-

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[8] Hume begins the *Enquiry* by indicating the function of moral philosophy as contributing "to the entertainment, instruction, and reformation of mankind" (p. 1) and proceeds to show that undue emphasis on either of the first two yielded inadequate philosophies. He therefore concludes: "Happy, if we can unite the boundaries of the different species of philosophy, by reconciling profound enquiry with clearness, and truth with novelty. And still more happy, if reasoning in this easy manner, we can undermine the foundations of an abstruse philosophy, which seems to have hitherto served only as a shelter to superstition, and a cover to absurdity and error." (p. 13).

Phillip Stanley has come closest (to the best of my knowledge) to recognizing the importance of reformation in Hume's philosophy. But he treats this concept primarily as a process of reformulation of the sceptical and dogmatic positions through which Hume moved psychically — cycles of doubt, escape from doubt, and return to doubt. He misses, I believe the centrality of the human understanding as the principle of reformation. Stanley, "The Scepticism of David Hume," *Journal of Philosophy*: 32: 421-431.

tions from supposed self-evident givens (as the Hard philosophers believe). Neither of these possibilities allows the continual development and reformation that is the proper philosophic enterprise which combines truth with novelty or progress. The first, example, simply identifies the present act with the past; the second, deduction, merely draws out from supposed self-evident principles the implications inherent in them. The proper philosophic method combines these two methods; for ideas are reformed by being related to impressions. This relation is twofold: (1) the ideas are similar to impressions — copies of them, in fact (as the argument by example emphasizes),[9] and (2) the ideas are necessarily connected to impressions — for ideas are not found without impressions (as the conclusion cannot be achieved without the proper premises).[10]

The proper end for philosophy is not merely the inculcation of virtue (as the easy philosophy holds); for that goal allows no progress in the thoughts and actions of men — it merely supposes that our present acts should always conform to the past virtuous acts and habits. On the other hand, Truth about the natures of things is also not the end; for fixed truth (1) is beyond the operations of the human understanding (as the proper method shows) and (2) implies a termination in the development of scientific and philosophic inquiry and of the improvement of the moral and political relations between men. Rather, the proper goal for philosophy is the discovery and refinement of those principles of the human understanding which allow the thought and action of men to become ever more efficient. These principles are those of the association of ideas; hence the perpetual refinement of these principles is the proper end of philosophy.[11]

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[9] *Enquiry*, p. 14.

[10] *Enquiry*, pp. 16-20. To clarify the meaning of ideas, one should refer them back to the original impressions. "By bringing our ideas into so clear a light we may reasonably hope to remove all dispute, which may arise, concerning their nature and reality." pp. 19-20.

[11] *Enquiry*, pp. 21-22. That Section III, "Of the Association of Ideas," is laying down the general ends for philosophy is not at first sight clear. But Hume's rather cautious statement that "there *appear* to be only three

With the proper principles, Hume is able to treat in turn the three operations or acts of the human understanding. The three acts are (1) the generation of belief — how ideas are entertained; (2) the development of knowledge — how instruction progresses by putting together two ideas significantly; and (3) the validation of our knowledge of the human understanding as the center of thought and action — how the principles of reform (philosophy itself) are reformed. This last step is achieved by eradicating the erroneous bases of belief, knowledge, and of philosophical and scientific principles.[12]

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principles of connection among ideas" (p. 22, italics mine) leaves room for further investigation into the principles of association. He concludes the section by making this very point. "But that this enumeration is complete, and that there are no other principles of association except these, may be difficult to prove to the satisfaction of the reader, or even to a man's own satisfaction. All we can do, in such cases, is to run over several instances, and examine carefully the principle which binds the different thoughts to each other, never stopping till we render the principle as general as possible. The more instances we examine, and the more care we employ, the more assurance shall we acquire, that the enumeration, which we form from the whole, is complete and entire." *Enquiry*, p. 22.

[12] Having laid down the proper principles of philosophy — subject-matter, method, and end, Hume need not discuss in detail the elimination of substances, either spiritual or material. For thinkers, who discourse about them commit the errors of the "hard" philosophers. The importance of Section I can hardly be overestimated, for it makes the whole of the *Enquiry* intelligible. Despite this, Hume's arguments have been reversed and Hume has been criticized for faulty argumentation. Assertions that there are positive doctrines in Hume about the external world (the world beyond the human understanding) are therefore misguided. Smith has realized that Hume's philosophy is essentially negative about externals (*Hume's Dialogues* — preface); yet he has sought positive features in the philosophy about externals (*Philosophy of David Hume*, ch. iv, pp. 85-87). The proper positive doctrines are found in the *Enquiry* in terms of the operations of the human understanding. (See notes 22 and 26 below on Smith's reversal of Hume's arguments on miracles and providence.) John Laird also accuses Hume of not being open-minded to outside powers. "Hume's arguments (against non-natural agencies) were so obviously feeble as to be interesting principally because of the light it threw upon the stubborn condition of his own mind." Laird, *Hume's Philosophy of Human Nature* (London: Methuen & Co., Ltd., 1932), p. 122. See also Laird's articles

Distinct from these three acts of the human understanding is the comprehension of the analytic relations between ideas purely in terms of the meanings of the ideas themselves. Thus, in mathematics, the ideas are defined and the relations are determined in accordance with these definitions. The relations of ideas then do not depend solely upon the acts of the human understanding but are fixed in accordance with the definitions of the objects or ideas themselves.[13]

Belief is generated or roused in the human understanding neither by appealing to the analytic relations of ideas nor by finding in any ideas an intrinsic character which warrants belief. (1) *Belief* about belief is obtained only by seeing how the understanding acts; for example, how children and animals act.[14] (2) Belief is *explained* (that is, knowledge of belief is obtained) by means of the development of habits — an operation of the human understanding dependent upon resemblance,

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in *Mind*, 48: 427-45, "Hume's Account of Sensitive Belief" and 52: 171-7, "Impressions and Ideas — a Note on Hume," wherein this same attempt to overcome Hume's inability to reach the external is developed. Price also attemps to extract from Hume's *Treatise* positive features about the external world. (*op. cit.*, p. 10).

[13] The distinction between relations of ideas and matters-of-fact is made in Sections IV and VII. But there is a difference in the way this distinction is drawn in these two sections. In Section IV, Hume treats these two aspects of ideas in terms of the objects each considers: the one considers contradictions; the other, contraries. In Section VII, Hume treats these two in terms of the connection which is obtainable in dealing with each of these fields: in relation of ideas, the connection is self-contained, even though lengthy; in matters-of-fact, the connection is short, but is not self-contained and must be sought. Thus, even in distinguishing the two aspects of ideas, he does so in the context of the problem he is considering: that of belief or that of knowledge. Gardner Williams separates the realm of the important and uncertain (matters-of-fact) from that of the unimportant and certain (relations of ideas). He admits degrees of truth and feels that Hume's scepticism is too severe. He misses, I believe, the proper function of the human understanding and the positive reconstitution of the philosophic problems in terms of this principle of unity in the *Enquiry*. Williams, "Some Traditional Sceptical Principles; and their Application, Especially to Mathematics and Logic;" *Journal of Philosophy*: 37: 599-608

[14] *Enquiry*, Section IV, especially pp. 38-39.

and contiguity, two principles of association.[15] (3) The basis for our determining the degree of a belief (*reforming* our beliefs) is found in the degree of repetition of similar impressions.[16]

The problem of knowledge or of the basis of instruction is that of discovering and expanding the connection which underlies two ideas, so that the understanding can move from one idea to another in the process of inquiry and discovery. In other words, the idea of necessary connection is given or assumed in all inquiry and learning; but its origin, meaning, and proper application must be made clear. (1) Its origin is found in the internal impression which results from the constant conjunction of impressions.[17] This impression is the basis of our *belief* in the idea of necessary connection; it is the act that explains how this idea is raised in the human understanding.[18] (2) Necessary connection is then used as the basis for *explaining* all knowledge obtainable by the human understanding.[19] Its meaning, therefore, is in its functioning as the basis of all meaning. (3) Finally, necessary connection is the basis for asserting that analogy is the basic principle for *re-forming* or continual development of our knowledge. The human understanding develops and grows only by analogizing a possible connection in the present to one in the past. Thus, through proportional resemblance, necessary connections are found beyond actual experience (for action in the future), yet within the range of future possible experience. (It is false to assume that for Hume experience is limited only to that which has happened — see below text on "A Particular Providence" and

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[15] *Enquiry*, Section V.

[16] *Enquiry*, Section VI.

[17] *Enquiry*, Section VII.

[18] *Enquiry*, p. 81. " But when many uniform instances appear ,and the same object is always followed by the same event; we then begin to *entertain* the notion of cause and connection. We then *feel* a new sentiment or impression, to wit, a customary connexion in the thought or imagination between one object and its usual attendant; and this sentiment is the original of that idea we seek for." (first italics, mine; second, Hume's).

[19] *Enquiry*, Section VIII.

footnote 27). The limit to our knowledge of the operations of the human understanding — that analogy is the basis of all knowledge — is found by the analogy of this operation to the operation of instinct in animals. Thus, analogy guarantees itself as the proper operation of the human understanding in its knowing and acting functions. One cannot explain beyond the method of explanation itself.[20]

In completing the analysis of belief and knowledge, Hume has provided himself with the tools for performing the most important philosophic task — that of *reforming* our ideas to conform with the proper operations of the human understanding. In so doing, he is in effect defending the analysis of the operations of belief and knowledge which he has just completed.

In Section X, "On Miracles," Hume is considering the possibility of another basis of belief. For if there is another basis than that outlined above (in Sections IV through VI), then all the operations of the human understanding as analyzed so far will be undermined. Hume develops the possibility of another source of belief in terms of the very operations of the human understanding which he has just explained. For belief is sometimes generated by the words of a person once that person has established a reputation for veracity; that is, in the past his words have been joined with the impression which we have had directly. (In fact, we usually don't question men in general, for we presume this relation holds until we learn differently). This process of accrediting the words of a person with an "impressional basis", because of the causal connection between the impressions and the words used to describe them, usually gives no occasion for doubt and disbelief. But in some cases, words are used contrary to our impressions and disbelief is normally the result. Nevertheless, there are other emotions and factors in man's nature which allow him to give belief to words which are most contrary to experience; for a miracle is not claimed for events which happen on occasions, but it is claimed for events which are contrary to those impressions

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[20] *Enquiry*, Section IX.

which men have always had. Ultimately, miracles must be traced to some external source or cause (since it cannot be explained by the constant conjunctions of impressions), and even an ordinary event can be treated as a miracle if its cause is attributed to a Deity (non-experiential relation). This is, of course, contrary to all experience.[21] Thus, another basis of belief is found which is beyond the operations of the human understanding, and if this is accepted as possible then all the operations of the human understanding are subverted and as Hume says, we can readily believe that a miracle has taken place in us.[22] The attribution of any event to an outside source or Deity, then, leaves us open to decide at will that whatever we wish can be so attributed; for there is no distinct mark or sign which is given in some events and not others that sets them off as coming from a special source. The refutation of this belief in miracles is essential to the completion of Hume's argument that belief in the human understanding should be generated only by the development of habits in accordance with the constant conjunctions of impressions and that when there is a conflict between what someone's words have led us to believe and the impressions themselves, we must cast aside those words which have misled us.[23]

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[21] *Enquiry*, p. 121, n. 1.

[22] *Enquiry*, p. 138. "So that, upon the whole, we may conclude, that the *Christian Religion* not only was at first attended with miracles, but even at this day cannot be believed by any reasonable person without one. Mere reason is insufficient to convince us of its veracity; And whoever is moved by *Faith* to assent to it, is conscious of a continued miracle in his own person, which subverts all the principles of his understanding, and gives him a determination to believe what is most contrary to custom and experience." Smith treats this statement as Humean irony (*Hume's Dialogues*, p. 47), and he concludes that Hume's argument proves there are "no grounds either in reason or in experience for postulating the kind of God to whom alone the Scriptural or other miracle can fittingly be ascribed." (p. 50). Thus, he analyzes Hume's treatment of miracles as a search for some kind of God, whereas it is actually a denial that there is any documentary evidence which should command our belief against factual impressions. This is the kind of reversal of argument which has occurred in various commentaries on Hume. (See note 12 above).

[23] *Enquiry*, Section X, especially pp. 121 and 137.

Likewise, the refutation of those philosophers and theologians [24] who combine faith with reason is essential to the maintenance of the proper operation of the human understanding in its explanation of knowledge and in its continued reformulation of the problems of philosophy in terms of the human understanding. Hume introduces the dialogue form (see note 27) in which a friend proves, after the fashion of Epicurus talking to educated Athenians, that the separation of knowledge from faith is practically feasible.[25] In effect, this argument is designed to prove the impossibility of man's knowledge about the future insofar as the future is attributed to an external source.[26] Hume modifies this argument in the remainder of the dialogue to show that man's knowledge of the future is not limited absolutely since the principle of analogy is applicable to similar occurences in man's experience.[27]

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[24] The theologians argue that men need a guide for their actions and insist that God must design the world so that good and evil acts will entail the appropriate returns.

[25] Epicurus shows the impossibility of applying the causal principle (the principle of knowledge) to God's future acts, since all we can know of Him is His present or past effects. Further, he maintains that empirical principles are sufficient (and in fact, all we really have) to make men virtuous and that there need be no appeal to divine providence for a workable ethical theory.

[26] Smith is puzzled again. He does not understand why Hume has entitled this section, "Of a Particular Providence and a Future State" when the argument is concerned with his inability to prove God's existence (*Hume's Dialogues*, p. 51). This title is explicable, as we have seen, in terms of Hume's primary concern with reforming the principles of knowledge and limiting them to their proper sphere. Smith's difficulty is another example of the reversal of Hume's argument.

[27] Smith poses but does not answer the interesting question, "why does Hume employ the dialogue form in this section and only in this section of the *Enquiry*." Perhaps, the answer to this question is to be found in the dual function which knowledge plays here. For knowledge is analogical reasoning and analogy for Hume is the process of filling in a fourth term in keeping with the proper relations among the other three terms. The other three terms are actually verifiable. Epicurus allows filling in the fourth term in the analogy: man's effects are to man as cause as the whole experienced world is to God as cause; but he points out that all

The importance of this section must not be underestimated; for Hume is insisting that arguments proving God's existence are not only false, but that His existence is completely irrelevant to gaining knowledge of the future and that, in fact, the assumption that His existence can give us knowledge of the future leads to further false conclusions. Thus, Hume rejects any use of God to guarante the metaphysical basis of knowledge; for example, Descartes uses God to substantiate the

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we can mean by this is that God is the cause of what is actually experienced, and further, that we can't analogize and then add more to the fourth term than is actually warranted by the relations it bears to the other three terms. The other function which knowledge plays is that of drawing distinctions between the way God functions and the way man functions. For we can analogize about future acts of man on the basis of the empirical principles laid down in previous sections (for example, we can know from the sight of building materials on an ordinary vacant lot that probably a building will be erected on that spot — or even that a belief in God by the vulgar (not the educated) Athenian is good evidence for our predicting that their acts will be good and virtuous). Whereas, even the analogy made by Epicurus is questionable; for the fourth term is never verifiable and it presumes God is similar to man (it makes God in man's image). The fact that the analogy can be both asserted and denied is grounds for our being unable to attain a positive solution to this problem and for Hume's concluding that this whole matter is beyond our knowledge. In his *Dialogues Concerning Natural Religion,* Hume states that such matters are those best suited to the dialogue form; for it allows both sides to be presented effectively. (*Hume's Dialogues,* ed. by Smith, pp. 127-8). Cf. also Mossner, E. C. "The Enigma of Hume;" *Mind*: 45: 334-49 for a recent attempt to extract the Real Hume and his Real Opponents from his dialogues. The great "modern" problem of induction and the question of whether or not "the Future will Resemble the Past" (*Enquiry,* Section IV, p. 37) are thus given a dual answer here. As far as man is concerned, certainly the future will be like the past, as the operations of the human understanding proceed analogically in all problems of knowing and acting. To ask what is beyond analogy as the basis of our dealing with experience is to ask a meaningless question. On other hand, absolute truth about the future guaranteed by God is clearly beyond the operations of the human understanding and in fact undermines those operations. (See note 34 below for two contemporary treatments of Hume's analysis of cause and induction.)

truth of clear and distinct ideas [28] and also to unite sense data to our mathematical ideas in our knowledge of the external material world.[29] If this were possible, then, the sharp line drawn between relations of ideas and matters-of-fact would be lost and the whole Humean analysis of the operations of the human understanding would collapse. Moreover, the appeal to a Deity gives a sense of finality in the solution of philosophic questions which is completely misleading and throttles true philosophic enterprise — rightfully, a continually developing, self-guaranteeing activity. A final solution takes all meaning from action and change and removes all change or action from true knowledge. Hence, Hume's analysis of the reformation of knowledge is intimately related to the argument of the *Enquiry*.

Having reformed the erroneous bases of belief and knowledge by eliminating the false principle, Hume completes his argument by reforming the principles of reform themselves; that is, philosophy in its primary sense. Philosophy in the primary sense as a reformatory discipline has been practiced by Hume's predecessors, even though they may have gone astray in appealing to faulty principles of belief and knowledge (such as God) in the solution of some of their problems. The principle of scepticism is the basic reformatory principle of philosophy. In Section I, Hume showed that mitigated scepticism omits the impossible problems of metaphysics, while at the same time it accounts for not only the acts of men but also the acts of awareness which men have of their own actions.

Section XII therefore reforms philosophy in its primary sense by showing that prior scepticisms have not been entirely adequate. (1) There are the moderate scepticisms which never really penetrate to the basic problems in philosophy — they are too moderate and do not attain the proper end of philo-

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[28] R. Descartes, *Meditations on First Philosophy*, trans. by Haldane and Ross (Cambridge: University Press, 1911), Med. IV. See also Alan Gewirth, "Clearness and Distinctness in Descartes;" *Philosophy;* 18: pp. 13 and 18.

[29] Descartes, *Meditations*, pp. 191-192; also Gewirth, *op. cit.* pp. 18-20.

sophy — continual reformation. There are two species of this ineffectual scepticism: (a) The Cartesian or antecedent which if really pursued properly would end up in Pyrrhonism (see 2 below), but which has appealed to non-philosophic, non-rational self-evident, God-given principles to avoid the unwanted but inescapable conclusions.[30] (b) The Berkeleyan or consequent scepticism sees clearly the difficulties involved in the construction of the sciences and has actually pointed toward the essential centrality of science and action in the human understanding. But Berkeley himself avoids this inevitable conclusion by instituting falsely an illegitimate non-empirical means of arriving at God who for him saves the situation.[31] (2) There is the Pyrrhonian scepticism which reforms itself out of existence. Though this extreme scepticism may be entirely consistent in its treatment of the object which it is analyzing (even if it be a mathematical treatment of space and time this is true), it is completely inconsistent if the whole act of analysis is taken as the proper object under consideration. The *act* of analysis is one of affirmation, even though the conclusions about the object under analysis may be negative.[32] (3) Only mitigated scepticism is adequate, for it avoids the simple dogmatisms of both the incomplete scepticisms of Descartes and Berkeley and the stringent scepticism of Pyrrho. It combines thought and action to attain a philosophy which allows continual development in both of these spheres.[33] This philosophy maintains itself, because it has achieved the necessary reforms in subject-matter, method, and end of philosophy by limiting itself to the investigation of the operations of the human understanding. In so doing it lays the foundation for growth and expansion in the field of science or thought and in the field of action — moral and political. This analysis allows man to rise above a simple determinate existence and to explain

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[30] *Enquiry*, Section XII, Pt. 1, pp. 158-159.
[31] *Enquiry*, Section XII, Pt. 1, pp. 159-164.
[32] *Enquiry*, Section XII, Pt. 2.
[33] *Enquiry*, Section XII, Pt. 3.

how he is aware of his determinate existence by the very determinations (causal connections) of the awareness of the human understanding; for this determination is a product of the human understanding itself.

Thus the *Enquiry* does present us with a unified argument, if the positive basis of Hume's thought is seen clearly — the founding of philosophy on the analysis of the human understanding. Further, the unity is attained by a three-fold analysis of the operations of the human understanding: (1) the raising of a belief — the proper process of entertainment; (2) the grounding of the union of two ideas or the operation of knowledge — the proper process of instruction; and (3) finally, the limiting of the operations to these two processes by cutting off appeals to other unknown and unknowable sources (external to the human understanding) as the basis of belief and knowledge — and this is the proper process of reformation.

If the argument of this paper is cogent, it appears that Hume's statements in the advertisement are correct. The argument throws light not only on this work, but on the whole of Hume's philosophy, since it generalizes and makes intelligible the brilliant but lisping efforts of the *Treatise* and lays a foundation for his subsequent works. If this is an adequate interpretation, it may well be asked how the universal preference for the *Treatise* over the *Enquiry* together with the gross misinterpretation of the *Enquiry* itself can be explained. Perhaps, these previous interpretations can be understood if they are taken not as the proper analysis of Hume's thought but as evidence (though certainly not conclusive) of the general contemporary approach to the problems of philosophy. As we know, the insistence on the abandonment not only of substances, but also of human understandings, wills, centers of thought and action is one aspect of modern philosophy generally. Contemporary thinkers are looking to other features of our world for a more concrete basis on which to found philosophy. The interpreters, then, in rejecting the *Enquiry* and in accepting the *Treatise* reflect the temper of the times. They accept Hume's purgative

analysis while rejecting his fundamental constructs. We cannot here consider the other bases of philosophy which have been assumed by the interpreters in erroneously analyzing Hume in spite of his clear unequivocal statements in the advertisement. Yet, it is worth while noting that today most of the philosophers fall into two rather distinct groups corresponding to the two aspects of ideas which Hume distinguished yet combined in terms of the unity of the human understanding.[34]

Many thinkers have centered their analyses on operations dealing with matters-of-fact and in that case have appealed to experience, process, or function. Philosophers who have done this have made language analysis and mathematics subsidiary problems for philosophy. Other thinkers have based their philosophies on the analysis of the meaning and relation of symbols (relations of ideas). These thinkers have relegated problems of experience to a secondary level, presuming that there is a commonsense basis for language which guarantees its connection with matters-of-fact.[35]

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[34] This hardly needs documentation. Any proof of this statement would certainly take us too far afield. This statement, if assumed, does throw light on the criticisms of Hume's philosophy — see note 35 below.

[35] A glimpse of the split in contemporary philosophy can be gained by a brief review of the opposing criticisms directed against Hume in the various attempts to "reconstruct" his philosophy on a sound basis. (1) There are the "operationalists" or "experientialists" of various shades and colors who insist that had Hume been aware of the importance of "events" as opposed to "objects", he could have avoided his sceptical position: for "events" involve continuity and causal efficacy, while "objects" involve discreteness and independence. Cf. Monroe C. Beardsley, "A Dilemma for Hume"; *Philosophical Review;* 52: 28-46. Also see J. W. Robson and Mason W. Gross, "Whitehead's Answer to Hume" (independent and different articles published consecutively with the same title); *Journal of Philosophy;* 38: 85-102 (also cf. the reply by Harold Taylor, "Hume's Answer to Whitehead," *ibid.* pp. 409-416). (2) There are the logicians who praise Hume for his critical abilities, yet deplore his inability to state his conclusions in concise propositonal form. This is a job which they have undertaken to do for him. They feel they are merely completing his positivistic approach to philosophy. G. E. Moore, "Hume's Philosophy," *Readings in Philosophical Analysis,* ed. by H. Feigl and W. Sellars (New York:

There have been a few thinkers [36] who have attempted to bridge this gap in contemporary philosophy. They have attempted to unite sign analysis with behavior patterns or pragmatic experientialism. How successful these researches

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Appleton-Century-Crofts, Inc., 1949), pp. 351-363. Also Virgil C. Aldrich, "Two Hundred Years after Hume's *Treatise*," *Journal of Philosophy;* 36: 600-605. Aldrich treats Hume as a modern would-be positivist and is unable to accept Hume's account as truly scientific. There is too much appeal to "feeling" and the emotions in Hume, so clearly this is a mixup of pragmatics with a scientific analysis. He is sure Hume would approve of modern positivism as a refinement of his own position.

An additional facet to this contemporary cross-purpose treatment of Hume may be seen in the analyses of A. P. Ushenko, "The Problem of Causal Inference," *Philosophy of Science*; 9: 132-8 and Dickinson Miller (alias R. E. Hobart, if Harold Taylor's statements in footnote to article cited above are correct — the ideas expressed under these two names are quite the same), "An Event in Modern Philosophy," *Philosophical Review*; 54: 593-606, and "Hume without Scepticism," *Mind*; 39: 273-301 and 409-425.

Both Ushenko and Miller are concerned with the problems of cause and induction in Hume. Miller finds that Hume has correctly analyzed cause by eliminating the notion that implication holds in the relations between things as it does between words; whereas Hume has miscontrued (become sceptical instead of analytic) the problem of induction by seeking evidence for that which is already self-evident. He sought for deductive proof in dealing with empirical fact. "Hume was looking for his spectacles when they were on his nose." (*Philosophical Review*, p. 606).

Ushenko finds that Hume has dealt adequately with induction (a psychological matter) and the difficulties of arriving at general principles, but that he has completely missed the point in treating the causal relation, which for Uskenko is a logical, formal principle independent of our ability to establish a given relationship.

Here again, there is a reversal of treatment of Hume corresponding to the major branches of contemporary philosophy. In this case, the analyses proceed on a two-level basis roughly equivalent to Hume's relations of ideas and matters of fact, but each of these analyses is pegged to one of the levels. Thus Miller's is pegged to the matter of fact — evidence that is evidence; while Ushenko is pegged to the formal relations of ideas (in which cause is included) level.

[36] For example, S. K. Langer and C. W. Morris. It is particularly evident in Morris' case. His three main works which bring together these two aspects of contemporary philosophy are:

are, at present, is not our concern here. But that these problems are being considered is evidence of a definite lacuna in the two major fields of contemporary thought. The necessity for a synthesis of divergent strands of thought has throughout the history of philosophy been the occasion for most of the great advances in philosophy and has laid the ground for the appearance of and solutions by most of the great figures in philosophy. Perhaps, the constructive features of Hume's philosophy cannot

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Logical Positivism, Pragmatism, and Scientific Empiricism (Paris: Hermann et cie., 1937).

Foundations of the Theory of Signs (Chicago: University of Chicago Press, 1938), Vol. I, No. 2, International Encyclopedia of Unified Science.

Signs, Language and Behavior (New York: Prentice-Hall, Inc., 1946).

Additional evidence that Morris does hold this position in contemporary philosophy is so easily provided and so generally recognized that only mention of it will be made here. For example, he is criticized by both of these extreme positions (the matter of fact and relation of ideas thinkers in Hume's terms) for misconstruing the problems of philosophy and for psychologizing philosophy. But the criticisms actually are directed at him from opposite sides. The one criticism is directed against him for hypostatizing a self: that is going beyond matters of fact or experience to posit a useless and unverifiable entity. The other criticism accuses him of attempting to extend psychological analyses beyond their proper scope to embrace what are properly philosophic and therefore prior problems — prior, meaning first in meaning or language analysis, symbolic relations. Dewey, Bently, and Gentry comprise the first group; Black, Aldrich, and Storer comprise the second. (There are considerable differences in the philosophies of the men in each of these groups; nevertheless, they can be significantly grouped in these two classes as they oppose Morris' philosophy.

In his overall reply to his critics, Morris concludes: "If this lead (Morris' account of semiosis) can be developed satisfactorily we can eat the cakes offered to us both by the pragmatists and the logical empiricists. I for one am hungry enough to want both." "Signs about Signs about Signs," *Philosophy and Phenomenological Research*, Vol. VIII, pp. 115-133. (In this article are to be found all the references to criticisms of Morris mentioned here with the exception of the one by Thomas Storer, "The Philosophical Relevance of a 'Behavioristic Semiotic,'" *Philosophy of Science*, Vol. 15, pp. 316-330. Is it possible that these extreme positions which Morris wants to unify are the contemporary "easy" and "hard" philosophies?

so easily be neglected as a meaningless hodge-podge. Perhaps, the importance of Hume's more mature thought will be recognized in the face of the difficulties of contemporary philosophic problems as thinkers seek a synthesis of the divergent elements — each of which, on the one hand, proclaims priority, yet on the other, expresses a fervent wish for the unity of science and thought.

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ON A REPUTED EQUIVOQUE IN THE PHILOSOPHY OF SPINOZA

Among the various ambiguities which have been invented (and I use the word equivocally) in the philosophy of Spinoza, and have been held to be fatal in respect of this or that part of it, or of the whole, none seems to have been so generally, and so undoubtingly, noted as his identification of the bodily *correlate* of the human mind with its physical *object* in *Ethices II., xiii.* And certainly no error (if it is an error) could be more fundamentally fatal to the whole speculation; an equivocal use of the term "idea" as at once the mental correlate of some neural or physiological state of the body of the percipient, and also the *essentia objectiva* of a thing extrinsic to that body — involving the simple identification of the human body with the object of the human mind that animates it — would seem to be a confusion at the source, infecting the whole system.[1]

I

Yet this very confusion was confidently attributed to Spinoza by Pollock in what was the first thoroughgoing exposition of his philosophy written in English.[2] In the *Tractatus de Intellectus Emendatione*,[3] Pollock tells us, an "idea" is "a conscious state of the knowing mind, in which the object known is represented". "If I think of Peter, the state of my conscious-

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[1] Other prominent examples of imputed incoherence (I say "imputed" to guard against the supposition that I recognize it as just in either case) are his reputed atomism in physics (based on his idea of the *corpus simplicissimum*) with his monism in natural philosophy, and his implied attribution of a measure of moral freedom to a being subject to universal necessity. But the former concerns only topics incompletely expounded — indeed in part avoided (*Eth. II., xiii. Sch.*) and in part left for further study (*Ep. lxxxiii S.*) and the latter would at worst but divorce the ethical doctrine from the ontology, and leave open a final problem which (as we now see) might be attacked (if not resolved) by a Kantian approach.

[2] *Spinoza, His Life and Philosophy*, (2nd ed.), pp. 123-26.

[3] *Tract. de Intell. Emend.*, § 33.

ness is an *idea* of Peter according to Spinoza's first usage of the term"; but, he says, Spinoza also conceives an "idea" of my mind as corresponding, not with *Peter* who is other than myself, but with *my own body*: and Pollock was evidently thinking of the *Proposition* I have named, which affirms that "the object of the idea constituting the human mind is the body... and nothing else". He then goes on to remark, with the air of counsel hurriedly briefed to clear up a case against a taciturn prisoner in a few words of plain commonsense about the law, that "a man can easily think of his own body, but he is not always doing so, and when he does his thought will not be accurate unless he has learnt something of physiology. And even if every human being were an accomplished physiologist, the constant relation of the mind as a whole to the body as a whole would still be something different from the relation of the knowing to the known". On the evidence of such naive and hasty lucubrations, the jury (with one or two doubting exceptions) have brought in a verdict of "Guilty" — and that in spite of the irrepressible aside of a footnote from counsel himself that "Spinoza himself once (*sic*) calls attention to the distinction: *Eth.* 2. 17, schol." [4] — for is not the prisoner thus condemned out of his own mouth ?

It will be my business in what follows to show, in my "longwinded" manner,[5] that we have here no callow confusion to be thus disposed of, but the very quintessence of Spinoza's solution of the otherwise insoluble problems of human epistemology and ontology.

It might have been supposed that no one but an eminent lawyer applying his great powers beyond their scope could have been willing to make so dubious and laconic a plea with so little reflection; but evidently it is still possible for even a patient and critical mind, like that of my former teacher and honoured friend the late Henry Barker, in commenting on the

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[4] Pollock, *loc. cit.*, p. 125, n.

[5] "I am carrying about a very solid and rather long-winded study of Spinoza's philosophy.....called *Aeternitas*, by one Hallett" (*The Pollock-Holmes Letters*, F. Pollock, August 29, 1931).

case, to attempt to substantiate it in "a rather fuller statement".[6] Since, however, this more ample statement is based upon precisely the same fundamental assumptions, it is no matter for wonder that Barker has to conclude by agreeing with Pollock that "when Spinoza speaks of the mind as *idea sive cognitio corporis*, he is confused and is using the word *idea* in a new and strange way". What is wonderful is that Barker, who makes real progress towards a resolution of the seeming equivocation by distinguishing two sets of relations, the causal and the "instrumental", fails at the crucial point correctly to apply the results of his analysis by supposing that the two sets form a single series — whereas in obvious fact they belong to distinct perspectives: that of the percipient himself, and that of *another* percipient.

II

What, then, is this fundamental assumption which I have imputed to these writers as involving them in the judgement that Spinoza is "interpreting correspondence in two ways, epistemological and physiological, without clearly realizing that he was doing so" ? I reply that it is their eccentric commonsense view of the nature of perception, derived from current post-Spinozistic empiricism, and infecting even the idealistic critics of that doctrine. It is commonly supposed that when a perceiver perceives an external object, e. *g*. the sun, "the sun (to quote Barker) as a cause sets up light waves which travel to the earth, affect the body or eye, and so initiate a physiological process which causes a brain change, in virtue of which, as a condition, perception of the sun takes place. The series of events that starts from the sun and has its physical (or physiological) termination in the brain is in its earlier stages a causal series, but in its last stage, *viz*. that in which perception takes place, and in which the brain functions as the organ or instrument of the mind, we had better describe it by another adject-

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[6] H. Barker, "Notes on the Second Part of Spinoza's Ethics, (II)" (*Mind, XLVII., N.S.*, p. 295).

ive such as 'instrumental', for the relation of mind to body or brain is so intimate that the notion of causal action seems inappropriate".[7] On this view we have a causal physical and physiological process followed by a psycho-physical "fact" or miracle — according as mind is regarded as epiphenomenal or "substantial".

I suppose that this account of the processes and relations involved in perception strikes the commonsense empiricistic reader as a plain recital of fact, or of theory directly based on fact, and too obvious to be open to question — it must do so since so many otherwise astute philosophers have accepted it as the factual basis of the theory of perception — and that in spite of all the multiplex difficulties and paradoxes that have in it their *fons et origo*. Of scientists and the vulgar I need not speak, for their naiveties in this sphere can do little harm, and perhaps some good. Nevertheless, in truth, we have here not a description of perception as it is, and truly, for the perceiver, but only of the processes associated with perception as *observed* by a percipient *other than* the one whose perception is supposed to be under investigation. Nor even this, for the last and crucial stage in the process is by nature unobservable, and must be imputed. When this is taken as an account of perception *in itself* it is no wonder that we become involved in a farrago of absurdities: *perceptio a non percipiendo!* For just as in this observed process the perception alone is unobservable, and must be imputed as a "fact" or miracle, so *per contra* in perception itself, and for the perceiver, this objective process is nowhere to be found, but only the perceptual relation between the percipient mind and an object that it directly perceives: here it is the causal process that must be imputed.

Thus, of the two sets of relations distinguished by Barker, the one is experienced only by the percipient himself; the other is what is observed, not as relating the percipient and the sun in the act of perception, but as relating *another man's* mind (conceived as in his head), his body, the medium, and the

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[7] H. Barker, *loc. cit.*, pp. 295-96.

sun as objects of external observation. Pollock and those who agree with him are involved in confusion because they appear to regard perception-in-act as a mere "shortcircuiting" of the elaborate processes observed by another, by which the causal processes are "telescoped-in", and only the socalled "instrumental" remain in sight, by reason of the special position of the percipient viewing the causal processes as it were "end on". Spinoza, on the contrary, is involved in no confusion since for him what is prior is the direct perception of the object, and the causal processes are "telescoped-out" by projection on the eccentric axes of *another* perceiver. He does not suppose that this direct perception is incorrigible, but it is not corrigible by reference to what *another* percipient directly perceives (and imputes) — for that too is equally corrigible, so that this way lies not correction but confusion. If we are to analyse perception, it is perception-in-act that we must investigate, and not perception as it is observed and imputed by another.

III

In perception-in-act, then, there is a direct perceptual relation of the percipient and the object that he perceives: how do we come to represent the perceptual relation of *another* percipient to the thing that we suppose him to be perceiving ("suppose" because he alone perceives it, and he cannot inform us that what he perceives is the thing that we perceive) as a set of causal relations between the thing and the perceiver's central nervous system, followed by a psycho-physical "fact" or miracle ? The man who perceives the sun does not at the same time perceive his own body or sense-organ with its cerebral connexions interposed between "him" and the sun. He is aware neither of a causal process with its terminal cerebral agitation, nor of any psycho-physical relation or transition "in his head". True, when he thinks that he knows by other means how the sun should appear, and notes that for his perception it appears otherwise, he is apt (in the absence of any previously unnoted external condition, such as the dark glasses on his nose) to

assign the difference to the abnormality of his sense-organism. But this inference is posterior to his objective interpretation of the situation in physical, physiological and psycho-physical terms, and not the immediate deliverance of his own perception, nor based on any premiss thence derived. Indeed, if he does think of his own optical system (on the analogy of the dark glasses on his nose) as interposed between "him" and the sun, it is as a "transparency" which (by reason of commonsense assumptions) may be regarded as more or less darkened or contorted by optical defect, jaundiced by pathological condition, or over-stimulated to an eccentric response. In other sense no man can be said to see his own eye-in-act among the objects that he sees. And the same is true of his whole body regarded as the objective instrument of perception as it is conceived *ab extra*.

In actual perceptual experience, of course, the situation is complicated and confused in so far as one sense-organ is instrumental in the external observation of another as an object in the world of that element of the total perception for which it is not instrumental. With the hand we can feel the eye as an object in the world mediated by touch; with the eye we can see the hand as a visual object; and so forth. And it is all too easy and seductive to complete these partial objective appearances by way of imagination to the form of a body among (and like) the observed bodies of other men which, as objects, are not subject to this strict privation. The mirror seems to bear this out, though what the mirror shows is what another would see if placed behind the mirror with the mercury removed. Thus, though we cannot see our eye-in-act we believe that it is there just as others see it, and we feel it, and see it in the mirror, and we presume that it is but an accident of position that prevents us from seeing it directly for ourselves — an accident of bodily structure similar to that which prevents us from seeing the back of our neck (which also we can see in a mirror). Yet *it is no mere accident, but the very essence of the situation;* neither the eye itself, nor anything else, is standing in the way of the eye, and shutting it off from the sight of

itself. On the contrary, it is revealing itself as it is in act, and by so doing revealing its world of visual objects — as it were patterned upon its transparency. And so of all the sense-organs: their absence from the worlds of objects in relation to which (as distinct objects for other men) they appear as instrumental, is *the very ground of their instrumentality*: they are absent from *among* these objects because in some manner they are present *in them all*. We may go so far as to say that for visual perception the eye-in-act is the visual field in which the objects of vision are related and distributed — though its appearance as field reciprocates with the appearance of objects, partial or total, upon it. For the eye that sees no object sees not at all, and is no eye-in-act.[8] And so, *mutatis mutandis*, of the whole body in the complex perception of its world. The "body" which is the *real* correlate of the percipient mind is not the object of some *other* mind, is not the "body" as it is observed *ab extra* (and even in part by the mutual instrumentality of its members), but the "body" as is *in itself*, and which as affected by other bodies, is the *object* of the mind's perception. The real correlate *is* the object, but not *one* of the objects constituting the mind's world: it is the mind's world operating as its measure of the real world that transcends it; it is the body with the *affectiones* concomitant with its relation with an extrinsic complement which thus only is represented in it. The body as it is in itself is, as it were, an instrument which manifests and measures the universe, and its *affectiones* are the "pointer-readings" to its other on the "scale" of its nature, by which that nature is in determinate reciprocation with its complement — a complement which is thus perceived *in projection*: in the form of the spatio-temporal transparency that is the objective appearance of the body itself in relation with its complement, decorated and shadowed with the unintelligible *data* which are the objective appearance of the transcendence of the world of others in relation with the body whose complement it is. As Berkeley

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[8] Sight, like all sense-perception, is essentially a function of a finite individual with respect to its other; the "eye of God" that "sees all things", "sees" them as "conscience" within each.

suggests,[9] the form of space timelessly objectifies the unimpeded agency of the body; and we may add that the durational "materials of sense" objectify the modifications of the body by reason of its response to the complex impedance of the other. And thus the world of perception is the objective appearance of the body as "affected" by its active complement in Nature, and its objectivity but a sign and symbol of the relative impotence of the body in comparison with the magnipotence of its complement. For bodies and the universe, in themselves, are not mere "things", but *agents*, and their objective appearances but privations of mutual projection.[10]

IV

This brings me to Spinoza's own account of the human body and its "*affectiones*". By an "*affectio*" in general Spinoza means any state of an entity referrible to what is distinct from the entity itself. "*Affectio*", "*modus*", and "*modificatio*" are terms interchangeable save by special usage in different connexions (*e.g.* a "mode" or "*affectio*" of Substance is an indivi-

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[9] *Principles*, § 116.

[10] The application of these principles to the different senses as these are *externally* conceived is, of course, on no unvarying plan, though as conceived as senses-*in-act* the differences are less striking. Sight, in terms of which my exposition has, in the main, been fashioned (the world of sight having a greater temporal totality than the world of touch) presents objects *at a distance* from the objective eye, whereas touch is a contact-perception. Thus an account in terms of touch would, perhaps, seem to the unconverted less speculative than one in terms of sight, since here what lies on the near side of the common surface of contact is "body", and what lies on the far side is the tactual "other". But yet, I suggest, even this difference is but another example of the main principle, and what seem for *another* perceiver to be the limits of the "body" may not be its true limits for the percipient *himself*. The blind man (as Descartes points out) *feels* the pavement with the ferule of his stick; and when I observe Orion my eye-*in-act* (*i.e. my total optical system*) extends to the limit of my visual percipience — it "rests upon Orion" (*vide* "On Things in Themselves", *Philosophy XIV.*, 1939, p. 177, n.).

dual thing [11] which, again, may be variously "affected" by other individual things or "modes" of Substance — thus having its own *"affectiones"*; but even here the "modes" "affect" one another only because all are *"affectiones"* or "modes" of Substance).[12] Take now two interacting modes of Extension, *e. g.* a diminutive and a bulky body in impact: they can impinge on one another only because both are modes of Extension; their "action and reaction" at impact are "equal and opposite" because, as Newton says,[13] the *vis insita* of each is an evocation of the *vis impressa* of the other (the *vis inertiae* of each measuring only the complete impotence of its isolation — for, *ex hypothesi*, it has no other to accelerate or retard, and its "inertia" is its impotence to accelerate or retard itself); but the *"affectiones"* of the two bodies are different by reason of their difference of bulk — the diminutive body being most "affected": their changes of speed being inversely proportional to their bulks. This is an elementary example of the general principle that the *"affectio"* of a thing is a function of its own nature and of the nature of the other by which it is "affected"; for though the *affectio* is a state of the thing itself, and belongs to it as a distinct entity, it is a state that is in part determined by the nature of its other. Because the mutually actualizing "action and reaction" are "equal and opposite", and the bulks are different, the *"affectiones"* (*i.e.* the acceleration or retardation) are different in inverse proportion to their differing bulks.[14]

Furthermore, these *"affectiones"* (as our example also illustrates) in the end *constitute* the things said to be "affected". There can be no isolated body (for the *vis inertiae* of the isolated body is total impotence — it is actualized as *vis insita* only by reaction to *vis impressa*); save as affected by another it is nothing. We thus reach the general principle that a finite

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[11] *Eth. I., xxv. Cor.*

[12] *"Affectio"* is to be distinguished from *"affectus"* which is a *disposition* towards another arising from an *affectio* or *state* determined by that other.

[13] *Principia I., Def. iii.*

[14] *Eth. II., Ax. i. post Lem. iii. Cor.*

thing is what it is solely by reason of its reciprocation with a complement, and has its perfect nature only by reciprocation with its exhaustive complement in Nature. It is thus that it is *constituted* by its *affectiones*, and what are commonly regarded as its *special affectiones* with respect to this or that selected other are but differentiations of its constitutive *affectiones*. As Whitehead has expressed the same doctrine (for "there is no new thing under the sun") there are no "things" having "simple location" and standing in "external relations" with other things.

It is of first importance, however, not to fall into the error of supposing that this implies that a body is nothing but a conventional focus characterized by the *resultant* of world-forces as concentrated upon it (on the analogy of the "centre of gravity" of a body). This might be adequate enough as a description of any supposed mere point-instant on which these forces converge — for then the resultant is zero, and the point-instant nothing actual at all. Each body, on the contrary, is a part of the universe, affected, not by the whole, but by its *complement* in the whole; and in so far as it is actual it has its own nature as *reactive* to the action of that complement. Though an *isolated* body is nothing, as reactive to its complement it is actual *with* that complement. To return to our example: in impact, each of the impinging bodies has its *vis insita* evoked by the *vis impressa* from its other, and operating *by way of reaction*.[15] Thus, each body is a *reactive focalization* of its complement, and its actuality is its reagency. It is thus only that the universe of bodies is actual: for if each were but the resultant at a conventional focus of the actions of all others, similarly defined, all

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[15] What this means is that the notion of otherwise isolated bodies impinging on one another is an abstraction: *at impact* they form a strained *totum;* as *isolated* they are but abstracted "poles" of "universal" stresses relative to themselves — and in that relation alone are actual. Thus the finite body is at once an abstraction taken alone, and an actual reactive "pole" of "universal" stress. Yet the universe as a whole suffers no stress, for it is complementary, not to any actual part of itself but, so to say, to the point-instant, which is nothing actual, and nothing distinct.

would be reduced to nonentity in a vicious circle of *vires inertiae*. And a world of point-instants would be doubly inert — the very acme of nonentity.[16]

Each body, then, is the reactive focalization of its world, and when two bodies are conceived as affecting each other, their *affectiones* are not in truth modifications supervenient upon their otherwise wholly independent absolute natures, but differentiations of the integral reactivity of all other bodies as focalized in them. The reagency of each is the evocation of the agency of all others, and the *affectiones* of each are the changes in its abstract nature reciprocating with the abstracted agency of *this or that* extrinsic body. Here we are dealing with an abstracted partial system of bodies, and in that reference an affected body suffers a change of its abstracted nature, and its modification or *"affectio"* with respect to its other registers the change suffered by its actual nature *as abstracted* — a change which, in respect of its *total* nature may be either a privation or an achievement. For its other may be either an aid or a hindrance to its perfection. It cannot but change its abstract temporal actuality, but this change may either involve concretion with Nature or further abstraction from it.

In the interaction of finite bodies, therefore, the *affectiones* partake both of the nature of the body affected and of that of its other — its own nature being, as it were, the scale on which its pointer indicates the power of its other. Just as the galvanometer measures with its needle on its disc the value of this or that selected electromagnetic field only by reason of its inductive reaction to that field, so the human body reactively focalizes its world, so that its special *affectiones* are differential pointer-readings on its scales, distributively measuring the reagency to it of all other bodies in that world to which it is capable of reacting. And the principle must be fully generalized — for all bodies whatsoever, like the galvanometer and

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[16] Those who have supposed that Spinoza's doctrine entails the illusoriness of all finite modes in the integrity of Nature, have perhaps been influenced by some such error. I am not as yet able to say whether Whitehead himself does or does not, in whole or in part, avoid the error.

the human body, are composed of parts similarly related in their orders to reciprocal complements, measuring them in their own ways, by the pointers of "*affectio*" on the scales of their own natures, *ad indefinitum*. The reactive essence of every finite body is a "pole" of the "universal" stress at that level in the hierarchy of Nature: an agency "equal and opposite" to the agency of its congruent complement.

In speaking of the "hierarchy of Nature" I am thinking of the doctrine of orders of corporeal individuality expounded by Spinoza in *Ethices II., Lem. vii, Sch.* An individual is actual, not by aggregation but by reciprocal action of its parts; and each part is actual only as the reactive focalization of all others. Each part in so far as it is individual is a microcosm of the whole, and thus also ultimately of the macrocosm. It reproduces its whole, and *the* whole, in the degree in which its complement can affect it, *i. e.* in the degree of its microcosmicity; and the nature of the microcosm is contributed to the whole both as affected part and as reactive focalization of its complement in turn, in due measure, affecting that complement. But the "contribution" is not by way of *addition*, but by way of *expression* more or less eccentric according to the status of the part and its abstractedness.

I have made use of the analogy of the scale and pointer-reading, and it may be well to consider the adequacy of the analogue: measures are, of course, always relative to a unit of measurement, and the calibration of the scale of a measuring instrument is essentially conventional. Thus the value of a pointer-reading on a scale is absolute only in so far as an absolute unit can be provided. It is thus that in our mathematical formulæ for expressing the laws of nature the pointer-readings of our instruments always qualify *variables* which stand for the absolute scales which the conventional scales of our instruments are made to represent. By themselves pointer-readings are of course without significance. The footrule measures distances, the clock durations, the galvanometer electromagnetic forces, and the human body the world of things by which it is affected, only in so far as these instruments, and the calibration of their

scales, can be taken to be absolute. In scientific practice the pointer-reading is significant because all that is required is a comparative measure of the variable; but for natural philosophy a more concrete attitude is desirable: the instrument is a part of the physical world short-circuiting its own nature in its scale as calibrated from a zero of abstract isolation, so that it gives only a differential measure of the abstracted other that differentially affects it. But when we come to deal with the human body, as the fundamental instrument of human observation, an instrument that is inescapable yet not itself observed in act (or capable of being calibrated in relation to an observed other), this shortcircuiting ceases to be tolerable to the philosopher, and and he is compelled to note, not merely its comparative pointer-readings on its native scale, but also the nature of the variable itself which constitutes that scale, and makes it humanly absolute (though not therefore universally incorrigible). At least he must do so if he is to gain true knowledge of the physical universe which integrates the body and the world that transcends the bodily instrument of observation. Not merely the magnitude of the bodily *affectiones* but their nature must be considered — all, indeed, that the shortcircuiting of the instrument neglects when we merely take its pointer-reading. And, of course, even the precise instruments of the scientist require an *observer* who is no disembodied spectator of isolated observable apparatus.[17] Even a supposed *generalized* observer

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[17] Many philosophers (and some scientists) have realized the importance of the *observer* in the understanding of Nature, but one and all have thought of the observer as a localized and dated *mind* to be corrected for by the elimination of all supposedly mental additions to the physical objects. This is a fundamental and far-reaching error. It is the *body* of the observer that is located and dated as an *object*, and is instrumental as the ineluctable instrument of perception. And it is the *relativity* of the objects of perception and science to this unnoted medium that cries aloud for correction in a credible natural philosophy.

Perhaps I may be allowed to add, in this connexion, that it is this forgetfulness of the function of the body in perception that has led so many thinkers to embrace an idealistic philosophy. Realizing that the physical world is no isolated *datum* externally related to the percipient, they have hastily concluded that it is internally related to the percipient *mind* — an

is one that observes by means of a generalized human body, and not *without* a body, and it is the *affectiones*, individual or generalized, of the body that must provide an absolute (though not necessarily incorrigible) scale and pointer-reading for man's knowledge of his complement under the shortcircuiting of the human body — and thus (under correction) of the world that is the integration of the body and its complement. In a word, where natural science is rightly content to short-circuit (and thus exclude from Nature) the ineluctable body of the observer (individual or generalized) corrected to normality, natural philosophy must embark on a final movement of integration bringing the body of the observer within the ambit of Nature, not as one of the observables (for *in act* it is the *instrument*, and not one of the *objects*, of observation), but as the fundamental variable the variations of which alone register the nature of its complement, which is thus observed in *its* affected nature. The *affectiones* of the body are thus, as I have said, the pointer-readings that measure the nature of the body's congruent complement on the scale of its reactive nature. What the mind *observes* is its own disc and pointer, and from these *taken together*, in the light of their presuppositions, we must gather the essential nature of the physical real.[18] Man

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error that has, perhaps, been made more credible by the absence for perception-in-act of the percipient's own body from the observed world. And when they have brought themselves to consider the status of the percipient's body in relation to his mind, they have been content to regard it as one of the objects internally related to his mind though accidentally occulted in the act of perception. Its essential instrumentality in perception has thus been at once allowed and ignored. The primary derelativization of which the observed world stands in need is of its relation to the body-in-act, and not of relation to finite mind; and this is a process that may require the re-interpretation of the nature of physical things as agents and reagents, but can hardly require their reduction to the status of "ideal contents" ordered by mental activity.

[18] The same principle is also applicable to the instruments of scientific practice: we must know *what* they measure — the nature of the variables in the mathematical expressions of natural process and constitution. Mere pointer-readings are without significance save as we presume the nature of their measurables. Nor (though these are often reducible to functions of

measures what is not man by his *affectiones*, and the world of observable Nature *is* thus his bodily *affectiones* projected upon, and decoratively shading, the screen of his partial community with his other with the unintelligible *data* of its partiality. But it is not from these *data* that knowledge of Nature as integrating man and his complement must be sought. Such knowledge must come from the *emendation* of their relativity as resulting from the human predicament; and that cannot be accomplished by any generalization or integration of their relativities. Knowledge of the whole is not to be sought in the perspective of the part, but only in the emendation of the part to the fashion of the whole — a process that is only possible in so far as the part is no mere section or selection of the whole, but its microcosm, reproducing in its limited form the nature of the macrocosm, and, in its own perspective, confusedly reproducing the nature of its complement. And a true natural philosophy must proceed by rational speculation (as opposed to imaginative guesswork), within the framework thus provided, to the determination of the nature of the physical macrocosm, and even of the negation that is implicit in its determinate nature as "physical".

V

We are now in a position to understand the significance of *Ethices II., xiii.* with its elaboration and *éclaircissements* in the propositions, postulates and *lemmata* that follow. These are, of course, partly epistemological in character and partly physical, but it is with their physical significance that we are now concerned. Emphasis is repeatedly placed by Spinoza upon the "fitness of the body for doing or suffering many things" as reciprocating with the mind's power of understand-

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the measures of more elementary variables — as "kinetic energy", *e. g.*, is a function of "mass" and "velocity") can measures alone constitute a measurable, however simple it may be. Even "space-time" requires a foot-rule and a clock if it is to be measured — or some substitute for these.

ing or perceiving many things [19] (a principle which is vitally prominent again in the ethical portions of the treatise).[20] The *Lemmata* then expound the broad principles of corporeal individuation and integration, beginning with "very simple bodies" [21] distinguished only by their "motion and rest, speed and slowness". These are determined by one another,[22] in such a manner that the determination of each is a function of its own nature and also the nature of its other.[23] Spinoza then passes to the way in which complex individuals are constituted, and the relations holding between their simpler parts, in virtue of which they are individuals. The human body is thus constituted of parts which are affected in various ways by external things; [24] it retains *"vestigia"* of these *affectiones*, and in turn reacts on these things and thus affects them.[25] Further, each *affectio* of the body is a function of its own nature and of the nature of the external thing affecting it; so that in perceiving its own body with its *affectiones* it is eo *ipso* perceiving the natures of external things as involved in the nature of its own body: [26] more or less abstractly according to the hierarchical perfection or imperfection of the body; and more or less confusedly as it has less or more in common with external things, *i. e.* according as its *affectiones* correspond with the intrinsic natures of external things.[27]

We have thus passed from the simple affirmation of *Ethices II., xiii.* that the human mind perceives only its own body, to the series of propositions and corollaries following the *Lemmata* (in which the hierarchical individuation of Nature is indicated) according to which the mind, in perceiving its own body with its *affectiones*, in the same act perceives the nature

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[19] *Eth. II., xiii. Sch.*
[20] *Cf. Eth. IV., xxxviii; V., xi., xiii., xxxix.*
[21] *"Corpora simplicissima".*
[22] *Eth. II., Lem. iii.*
[23] *Eth. II., Ax. i. post Lem. iii.*
[24] *Eth. II., Post. iii. post Lem. vii.*
[25] *Eth. II., Postt. iii., v., vi. post Lem. vii.*
[26] *Eth. II., xvi. et Corr. i. et ii.*
[27] *Eth. II., xxxviii, xxxix.*

of many things [28] in terms of their community (more or less limited and confused by projection upon the reference system of the body) with the body,[29] and as present distinct from the body by reason of the body's reagency to their agency; [30] and further, the mind perceives its body, and knows it to exist, only through these same *affectiones* registering in it the actions of other things as evoking the reactions of the body.[31] Though the mind perceives *only* its body, yet to perceive the body as existing *alone* would be to perceive an illusion: for the body is nothing save as reactive focalization of its complement in Nature up to the measure of their community of essence, *i. e.* in so far as the body is "fit for doing or suffering many things". In perceiving its body as affected the mind perceives its complement as affecting it: the body and its other are at once *distinct* as *poles* of a common stress, and *identical* as poles of a *common* stress. It is thus that in so far as the *affectio* confuses the natures of self and other (through defective community) they remain one *for observation*, yet distinct as mutual *agents*. Contrariwise, in so far as the *affectio* (by reason of perfect community) is clear and distinct, *observation of* an other gives place to *love for* another.

In *mera experientia* these conditions are operant together in various measures: in part, there must always be some measure of clarity in our *affectiones*, since all interaction is based on community; [32] in part, there is always some measure of con-

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[28] *Eth. II., xvi. Cor. i.*

[29] *Eth. II., xvi. Cor. ii.*

[30] *Eth. II., xvii.* It ought to be noted that Spinoza is here led, by his wish to explain the bases of fictitious imagination and memory (*Eth. II., xvii. Cor., Sch., xviii. et Sch.*), to leave unemphasized the real source of our belief in the present existence of external things, *viz.* their reagency to the agency of the body. For we do not, in fact, merely await a new *affectio* to exclude that which has occurred in order to discover whether a thing has been removed — we *seek* a new *affectio* by experimental activity But of course the agency and reagency of self and other are intuited as mutual.

[31] *Eth. II., xix.*

[32] *Eth. I., iii.*

fusion in *mera experientia*, through which the other presents unintelligible content for observation — content the unintelligibility of which so darkens our awareness as to startle the commonsense consciousness into the fundamental empiricistic error of supposing that here we have "fact" *par excellence*, the reality of which, as resisting intellectual analysis, posits itself as transcendent. And beyond this, as with all human percipience, there is simple defect by reason of the stultitude of the human body. Thus there is formed the perception of a world of qualitied "things" external to, and acting upon, one another: the "common order of nature" variously compounding the elements of objective *datum*, of relation, and of limitation — a world that is the body of the perceiver with its *affectiones*, mirrored to the mind in the speculum of the active other, of which the body is the otherwise unperceived reactive focalization.

VI

What, then, is the true "pathway to Reality"? Broadly speaking it is the accommodation of the human body to the nature of the universe. But this is evidently a process subject to strict limitation: for the human body is, after all, only a subordinate *part* of Nature, a microcosm of the macrocosm which, as such, has its proper limitations. The most that can legitimately be sought is thus their extension to their limit, and (more especially) the clarification of, its *affectiones* — the broadening of *mera experientia* and the elucidation of its confusion. In Nature as it is in itself all things enjoy perfect community as flowing from their unique and indivisible source, and their *affectiones* are individually constitutive "without confusion of persons". Confusion arises from the eccentric reference of all things to the partial self to which the part is decoyed by its own simultaneous partiality and distinctness; distinction is read as isolation with external relation, and the indivisible Nature that integrates self and complement is projected in the perspective of the part as a world of more or less unintelligible others from which the body-in-act is distributively absent (while yet forming a part

of it by distributive remainder — which remainder, by illegitimate imputation, is taken as total). Thus the proper defect of the part, with its proper perfection, becomes the source of the privation and eccentric projection of the remainder in the reference system of the part: an "imagination" that can only be corrected to yield a true view of the whole by "referring all things to God", *i. e.* by so transcending the axes of the self as that both self and complement are understood as flowing from the undivided essence of Nature: the absolute "origin" of the reference system of creation. In that creative perspective the human body is a microcosm reproducing in its measure the "fashion or make of the whole universe",[33] a reactive focalization of its complement in Nature, with which (in so far as the body is responsive to its other) it is identical in mode and distinct in agency — forming with it, as it were, a universal stress of "action and reaction equal and opposite": a cross-section of the hierarchy of creation.[34]

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[33] "*Facies totius universi*" (Ep. lxiv.). As I have often said, the universal translation of "*facies*" as "face" in this phrase is most unfortunate, emphasizing as it does the danger of identification with the visible universe, or "common order of nature".

[34] To this cross-sectional structure there are set two limits: Nature as a whole, and the "point-instant", neither of which is a self acted upon and reacting to a complement. The latter raises no special difficulty, for the point-instant is the zero focus of all stress in Nature — a mere ideal limit without modality, or even *distinct* place and date. The former, *viz.* Nature as a whole, might seem also, on the principles elaborated, to be an unreal limit in the absence of a complement awaking it to reaction. Such a supposition is based, however, on a too abstract reading of the character of the stresses of finite bodies in Nature. We think of two bodies as actualizing each other by impact, through which the *vis impressa* of each evokes the *vis insita* of the other — forgetting that two bodies can only impinge on each other if they are *in motion* relative to one another. But, indeed, just as a man who pushes a boat into the water presses the ground under his feet in the opposite direction, and the water presses backwards upon the boat, with equal force (the changes of relative motion in the system being changes in *affectio* in its parts by reason of these balanced pressures operating on bodies of unequal mass), so the reaction of bodies in impact are balanced by the assumed, but neglected, actions by which the bodies are in relative motion. Thus each body is not only a pole of external stress but

VII

Aptness of the human mind for understanding Nature thus corresponds with the aptness of the human body "for doing and suffering many things", and it will be well, in conclusion, to inquire into the degree and the limitations of this aptitude. There is nothing in Nature as veridically observed, or rightly inferred from what is so observed, that is not an *affectio* of the body of the observer, clearly and intelligibly identifying the natures of both body and its complement, or obscurely and unintelligibly combining them under unilateral reference to the axes of the body. In things as they are in themselves in the eternal stream of creation, in so far as there is community of nature in the body and its complement, they form the identity of a single stressed system the poles of which are mutually reactive. Projected upon the axes of the body, however, this mutuality is restricted and the identity destroyed so far as relates to reality, while being retained in appearance (hence the body-*in-act* and its complement *for observation* are identical), so

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also the seat of internal stress, and is concretely actualized only thereby. In imputing relative motion to the impinging bodies, we are abstracting from their concrete setting in Nature, and supposing (with Descartes) that the motion *belongs* to the bodies, and that the impact of bodies thus constituted can provide *a priori* principles for the deduction of the results of impact of complex bodies, more or less elastic, regarded as "second order" phenomena. But all bodies are complex and in some measure elastic — nor can a Cartesian simple body be intelligibly conceived.[a] Because the actuality of a finite body is the *reactive* focalization of its complement in Nature, a multipolar stress balancing the multipolar stress of its complement, Nature as a whole is the very basis of the reality of both, and no mere ideal limit.

[a] Descartes's *Rules of Motion in Impact*, taken as directly applicable to empirical bodies, seem to assume perfect elasticity where change of direction is required, and perfect inelasticity where it is not. Hence the apparent contradiction of his assertions that all motion is relative, and that the result of the impact of two bodies with a given relative motion depends on whether both are moving in the same or opposite directions, or one is at rest. But, of course, Descartes himself never supposed that his *Rules* are capable of such direct application, seeing that all bodies are, for him, embedded in the plenum (*vide Princip. Philos., II.*, Artt. 53, 56-60).

that the bodily *affectiones* confuse the natures of body and complement, and can be rightly imputed to neither in itself. In this eccentric perspective the way to truth seems to lie in the analysis of the *affectiones* so as to reconstruct body and complement in isolation. But this process can proceed but a little way (to parody Bacon — sufficient to "convince" positivism but not to "inform" metaphysics) sufficient to exclude perceptual illusions and objective obfuscations, but not to establish reality. For the body and its other are not as such isolable, but actively distinct while remaining internally related. Each is in the end *constituted* by its *affectiones*. Truth, therefore, lies not in the mere analysis of the bodily *affectiones* but in their emendation to intelligible form by the correction of the axes of reference by relation to which they are unintelligible. In so far as there is difference of nature between the body and its other (a difference necessarily embedded in identity) the body is inapt to react to the action of the other. And this stultitude must affect the mind's cognizance of its other, in reality limiting it, and in appearance confusing its limited apprehension. Its limitation is its *ignorance*, its confusion the seat of *error* in so far as unintelligible *affectiones* are taken as verificatory norms, *i. e.* as revealing the character either of the body itself or of its other as it is in itself, as distinct interacting physical agents. Thus the power of the mind to understand Nature corresponds with the aptness of the body for actualizing its other by reaction to its agency; and the impotence of the mind to render its *affectiones* intelligible arises from the privation of the mutuality of body and other as agents-in-act by the unilateral projection of their stress upon its bodily pole.

Putting aside the problem of ignorance (founded upon bodily indifference to factors in the real), and of the grounds of our awareness of ignorance, as beyond our present scope, we may say that the intelligibility or otherwise of the objects of our cognizance measures the aptness or otherwise of our bodies for doing and suffering many things.[35] In fact, of course,

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[35] The difficulty that may here be raised is that the intelligible and unintelligible elements of objective Nature seem to be inextricable.[a] But

these objects are always in part intelligible and in part unintelligible — for mere *data* are nothing but "blind spots" on the field of mental vision. The resolution of the phenomenality of the "common order of nature" lies in the simultaneous integration of the body with its complement in Nature, and the emendation of the body's eccentric perspective of Nature. And the one entails the other.

Further, this simultaneous integration and emendation is possible only because, and in so far as, the body is a microcosm of Nature, and thus at once finite in fact and infinite in principle, i.e. because, and in so far as, Nature integrates the body and its complement so that the body is a part of Nature apt to do and to suffer many things from its complement. As the body is finite in fact its objects are for it ineluctable (and this is the foundation of their unintelligible givenness: we continue to see the "straight staff bent in a pool" even after we have learnt the true cause of the appearance); as it is infinite in principle its objects are recognized as phenomenal (and this is the foundation of their reality under correction: "demonstrations are the eyes of the mind"). It is the finiteness, the partiality, of the body in Nature that abstracts our grasp of Nature; it is the self-centred eccentricity of the body that is the root of unintelligibility in the "common order of nature", and of the topsyturvydom by which the body which, in act, is no object to the mind that animates it, is apprehended as

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this is a problem only for those who regard the axe and the shovel as the sole implements of the philosopher. We are not bound to accept either the realism of commonsense, the abstract realism of science, or the physical unrealism of Berkeley — for the disjunction is based on the assumption that the percipient is a disembodied spectator of the universe. And no such observer is to be found. Doubtless the factors of illusion in our contemplated world do, in their degree, limit the reality of the factors of reality, just as the latter lend reality to the former. But this intelligible-unintelligible world is not given to disembodied mind, but is an abstraction of the physically real complement of the observer's body as it is actualized relative to that body, and in active contrast with it as reactive focalization.

[a] *E. g.* Berkeley's refusal to separate sense-quality from extension, and to affirm the physical reality of the latter while denying it to the former.

revealing an external world of reactive Nature decorated with mere *data* that are the *affectiones* of the body in its distributive reciprocity with a complement partially pulverized by abstraction from the "infinite, unique and indivisible" [36] Nature by relative isolation over against the body. The tail of the "Prince Rupert's Drop" of Nature is broken off, and the whole resolved to fragments. In the creative integrity of Nature alone lies reality; in the relativity of the observation by one part of the others, phenomenality; and truth is to be found only through the realization of the relations of all microcosms with each other and with the macrocosm, characteristic of eternal creation. "Fact" may be "observed", but "reality" can only be "loved". All things must therefore be "referred to God",[37] correcting the eccentricity of the self-isolated and self-referent microcosm; and in that "emendation of the understanding" the identity of the animated body with its reciprocating complement in Nature is known as active love for the reactive other, by which self and other are mutually constituted. For appearance, as in reality, finite self and other are one in modality, other in agency; and in its perfection this identity in otherness is but an abstractive differentiation of the "infinite love wherewith God loves himself" [38] in the creative action by which the infinite indeterminate potency is expressed in act in infinitely determinate form, as "infinite things follow in infinite ways from the necessity of the divine nature".[39] For the integrity of Nature, like the integrity of love, is the union of the self with its absolute other that is also its complement and absolute expression; and from the relation of God and the world is derived, and abstracted as its dim reflection, the relation of the self with its intelligible other — a reflection that is contorted and confused as the self deifies itself as cosmic, and is amply discredited by the appearance of unintelligible *data* in the transparency of

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[36] *Ep. xii.*
[37] *Eth. II., xxxii.*
[38] *Eth. V., xxxv, xxxvi.*
[39] *Eth. I., xvi.*

its intellectual vision. So far, therefore, from such *data* constituting verificatory norms of certitude, they verify only the impotence of their recipients, and the "fall" that must follow upon their idle wish to be "as gods".

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THE PHILOSOPHY OF NATURE IN HEGEL'S SYSTEM

The Philosophy of Nature has been discredited by many contemporary philosophers as spurious. The only genuine knowledge of nature they aver is to be had from the natural sciences and any speculation on the part of the philosopher about Nature or the world in general would fall outside the proper province of philosophy. Such a view itself presupposes a conception of the nature of reality which requires defence. It is a conception for which no evidence can be obtained from the natural sciences — though it is, for the most part, presupposed also by the scientist — but if the philosophers who maintain it were to attempt to defend it they would be forced to embark upon just such a transgression of the alleged limits of their subject as they are themselves at pains to condemn. Yet unless the view of reality which they presuppose can be substantiated their argument against the Philosophy of Nature merits no consideration, and in the following discussion of Hegel's philosophy I intend to ignore it and to allow those arguments to stand by which he held that he had dealt with and disposed of that view of the real on the basis of which his philosophy is nowadays frequently ruled out of court. My object in this paper is to consider Hegel's theory from his own point of view and to suggest an interpretation of it which I believe to be at least near to what he himself intended and which will remove an internal contradiction from his philosophy that has been alleged even by those who have been most in agreement with his teaching.

The *Encyclopädie der Philosophischen Wissenschaften* contains what is rightly called the system of Hegel's philosophy, his other treatises being, in the main, more detailed developments of certain sections of the *Encyclopädie*. For him the body of philosophical knowledge consists of three main divisions, Logic, Nature-philosophy and the Philosophy of Spirit, forming the supreme triad of the Dialectic and continuous with each other in the dialectical movement of thought.

The Philosophy of Nature, however, has been held suspect even by followers of Hegel who adhere to the doctrine of Absolute Idealism; in fact, by some of his most ardent disciples. For the development of the view by both contemporary and later thinkers has led to a position according to which Hegel's excursion into Nature-philosophy appears inconsistent with his own idealism. Whether the alleged inconsistency is supposed to affect the Philosophy of Spirit also is not clear, but it does, at least, throw doubt upon the claim of the second science of the Encyclopædia to be a genuine branch of philosophy. The view which leads to this condemnation of the *Naturphilosophie* was first voiced by Schelling, but it follows also from what will be called, in the sequel, the 'Bradleian' version of Absolutism, though this should not be taken to imply that Bradley was responsible for the statement of it which follows or that he voiced the objection to Hegel's philosophy here considered.[1]

The arguments relevant to the matter in hand may be briefly summarised as follows. The opposition of subject to object in knowledge is characteristic of a conception of reality which breaks down under criticism. Hegel has shown that this conception is provisional, belonging only to a certain level of thought. In a higher conception it is transcended and the opposition is overcome. This higher conception is the notion of self-conscious mind (in Hegel's Logic, 'the Idea') and it is neither merely subjective nor merely objective. It is an experience which is its own object, an experience which is infinite and all-inclusive. Such an infinite and all-inclusive experience is the true nature of reality, but within it there are stages of development of mind at which the real appears under categories more

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[1] I have stated the arguments in support of this objection in my own way but have based my statement upon personal discussions which I have had in the past with two prominent thinkers of the Bradleian school (namely the late Profs. H. H. Joachim and J. A. Smith). The objection is similar, also, to Crose's criticism of the *Naturphilosophie* in *What is Living and What is Dead in the Philosophy of Hegel*, though that criticism is made for different reasons. A separate discussion would be necessary to deal with Croce's position and what is said here can have, at most, an indirect bearing on his view.

or less inadequate to its proper character. Bradley represents this development as falling broadly into three phases of which the lowest is 'immediate', unreflective experience, or 'feeling'. Next there is 'mediate' experience, the sphere of rational thinking in which distinctions are made within the whole and abstractions from it. To this level belong the distinction between subject and object and the conception of Nature as the object of scientific knowledge set over against the knowing mind. Finally, beyond and above rational thinking there is a third level of experience which the human mind knows only in general terms; in its fulness it is unattainable by man, who has, at best, only occasional premonitions of it.

On this view, Nature, regarded as an object in opposition to a knowing subject, is held to be an abstraction, an appearance and not the reality. It is a notion having a measure of truth but one which is not ultimately self-consistent and which is sublated in a higher conception, namely that of reality as an experience which is at once both subjective and objective.

Now the Logic of Hegel is a detailed critical account of all the phases of experience from the most rudimentary to the most explicit. In the course of the dialectic, those categories which science uses in its treatment of Nature as an object external to mind are passed and transcended. The final and the truest view of reality is the Absolute Idea in which the dialectic of the Logic culminates. As, for the Bradleian, experience *is* reality, there should be no more to be said upon the subject. A philosophical science, therefore, which professes to go beyond Logic and to expound the system of Nature as the Idea 'in the form of other-being' seems not only unnecessary but spurious. The true philosophical account of Nature has already been given. Nature is an ideal construction, a partial view of the real which cannot be maintained without displaying internal contradiction. It belongs to an assigned level of thought and has already been treated and disposed of in the Logic.

Whatever may be the faults of the Bradleian position, this criticism of Hegel to which it gives rise is at least plausible in the light of some of Hegel's own statements. For instance,

in the *Encyclopädie* (§6), he says that '*actuality* is that core of truth which, originally produced and producing itself within the precincts of the mental life, has become the *world*, the inward and outward world of consciousness'.[2] One might think that an actuality 'produced and producing itself' in this manner was something very like Bradley's 'ideal construction'. Nature, it would seem is part — the 'outward' part — of this 'world'. Further, Hegel points out in the same section, that in his Logic he 'has treated, among other things, of actuality', which is indeed the case. Why then go beyond the Logic for a separate account of Nature? Clearly the *Naturphilosophie* is not intended to be a recapitulation *in extenso* of a section of the Logic. This is apparent from what we read in Sections 15 to 18 of the *Encyclopädie*, and the conclusion of the Logic itself should leave us in no doubt that the Philosophy of Nature is intended to be a further stage of the dialectical movement of thought and not a simple development of part of the Logic.[3] Moreover, the categories in the *Naturphilosophie* are not the same as those of the Doctrine of Essence (*Wesen*) — in which actuality is treated — or any section of it, as the categories, for instance, of the *Philosophie des Rechts* are the same as those of the second part of the *Philosophie des Geistes*. Quite clearly the *Naturphilosophie* covers the whole of reality in one aspect (so to speak) — that of 'externality'. Surely then, its very existence in Hegel's system is an inconsistency, for the statements quoted above, that 'actuality' produces itself 'within the precincts of the mental life' and that it has been treated in the Logic seem to render it superfluous.

Nevertheless, it is my belief that a Bradleian interpretation of Hegel, leading as it does to this apparent inconsistency, is

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[2] Wallace's translation.

[3] Cf. *Enc.*, § 18: 'The differences of the separate philosophical sciences are simply the determinations of the Idea itself, and it is this alone that presents itself in these different aspects (*Elementen*). In Nature it is not anything other than the Idea which is to be discerned, but here the Idea is in the form of externality; so also in Spirit it is the same Idea, as existing for itself and becoming absolute (*an und für sich*).'

not the right interpretation. The passages which have been quoted are seen in a different light if taken along with what Hegel says elsewhere and are consistent with a different interpretation of the Hegelian philosophy as a whole which does not give rise to the Bradleian difficulty concerning the Philosophy of Nature. A conception of Nature is possible different from that of which Bradley (for instance) treats in *Appearance and Reality*,[4] a conception consistent with a thorough-going idealism and more truly Hegelian, one which justifies Hegel's treatment of Nature as the 'other' of the Idea.

We may help ourselves to begin with by taking a view of the world similar to that which Alexander holds. We have first the physico-chemical world in space-time (according to Alexander the former is 'emergent' from the latter); then life emerges from special configurations of physical matter; from life we get the emergent quality of consciousness, and so on. Though I have used Alexander's terms, I am far from wishing to commit myself to agreement with the detail of his theory. I am simply attempting to outline a view of the world as a process of evolution or 'emergence' in which the different forms of existing things are different stages.

Now it ought to be clear that if something emerges from something else, it must first be present, in some way or other, in that from which it emerges. Otherwise it cannot *emerge*, but must come into being independently of what appears to be the former stage. The butterfly is said to emerge from the chrysalis only because it has all along been present in the chrysalis, even though it has not always been present in the same form. However difficult to understand the notion of becoming or development may be, so much seems plain, that if a process of becoming is to be truly continuous, what emerges at the end of the process must have been present in some form or in some degree at the beginning. It is the element of continuity which is important, and, incidentally, it is one to which Alexander does insufficient justice. This does not mean that development

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[4] Ch. XXII.

is no more than a kind of growth, that what appears in the end was originally included or contained, in some diminutive form, within that out of which it has grown, as an embryo is contained in and grows out of an egg. What it does mean is that there must be some special kind of identity running through a process of development so that the first phase in some sense *is* what it has in it to become. The difficulty of understanding the conception is just the difficulty of explaining in what sense this is true, the difficulty of explaining what kind of identity runs through the process. As it is a difficulty, however, that has defeated the efforts of better men than I, perhaps I may be excused if I pass it over here. Nor is it necessary for my present purpose to discuss it. All that need be conceded is that there can be no process of becoming unless there is an identity running through it sufficient for us to say that, at every phase, what develops is always the same thing and is therefore, in some sense, degree or form, what will eventually emerge. There will, of course, be a correlative sense in which each phase is *not* what it is about to become; otherwise development will be equally impossible.

If this contention is allowed, it follows that, as the process of natural evolution results in the final emergence of mind, mind must be present throughout its course. Some thinkers (T. H. Green, for instance) deny that consciousness can be a product of natural evolution, but they do so on the ground that what is in no sense mind cannot generate mind. If, however, we assume that the entire process is one of mind's own development, we are not subject to this criticism. Green protests against the view that consciousness is somehow produced out of a material which is totally other than mind and which later becomes the object of consciousness.[5] In this he is right, for if consciousness is not in some way in the material, it cannot develop out of it. On the other hand, if we can regard the material as itself a form or manifestation (calling it that for lack of a better word) of mind, the difficulty does not arise. There would then be no foreign material and in every phase of

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[5] Cf. *Prolegomena to Ethics*, Bk. 1.

natural evolution we should have actually a form of mind. All forms of existing things in space-time will be regarded as ways in which mind manifests itself — in the Hegelian phrase — 'in the form of externality'.

The difficulties presented by this view may be great; nevertheless, the true Hegelian conception of Nature is, I believe, of a world, in every detail of which mind is immanent and throughout which mind comes to consciousness in and by means of a process of self-evolution. On the one hand, mind is not viewed as something merely 'subjective' or merely psychical, and on the other hand, matter is not viewed, simply as a matrix in which life and mind come into existence at certain points, but as itself a form of the Idea, a manifestation, that is, of mind. Accordingly the dialectical principle active in the sphere of thought, is also the principle of natural development. Hegel, it is true, confines development in the proper sense of the word, entirely to the sphere of the Notion; [6] but he also says of Dialectic that 'it is the principle of all movement, all life and all effectiveness (*Betätigung*) in the actual world'.[7] This shows that while he regarded Dialectic as the universal principle of movement and evolutionary process, it is only in the activity of thought that he recognises the true form of development proper.

The evolutionary process goes through numerous phases which constitute the range of existing things in the material world, eventually bringing mind, which has been immanent all along, to consciousness of itself — or, to say the same thing in different words (as material things are manifestations of mind), bringing the world to explicit consciousness in the self-awareness of mind.

This must not be taken to mean, however, that all things are conscious minds, in the sense, at any rate, that our minds are conscious. That would be a doctrine both unwarranted and

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[6] *Enc.*, § 161

[7] *Enc.*, § 81, *Zusatz* (1)

unhelpful.[8] We can say no more than that there must be in things some germ of mind if mind is to develop from them. What form this germ takes, what kind of inchoate or rudimentary consciousness is in 'inanimate' nature, we have no means of knowing. It is the continuity of the process of development which makes it necessary to assert that some form of mind is present in lower nature, and if the process is, in fact, not continuous the assertion will not follow — at least, not by the same reasoning. Again, if mind is not present throughout, the process cannot be continuous. In the present discussion, however, we may assume that the process is continuous, for we have good reason to believe that, in a very definite manner, Hegel thought it so.

Viewing the process of evolution as a whole, in accordance with the above account of Nature, we see the emergence of life and consciousness as stages in the development of mind. The process of mental development to which that phrase ('development of mind') is commonly applied is now to be regarded as including only the higher phases of a larger development which reaches down into spheres of existence where explicit consciousness, as we know it, is not present. In this process the higher phases do not merely replace the lower but they carry them up to a higher plane of existence. Matter is not lost in life nor life in consciousness, but just as the end is immanent in all the stages of the process, so the process is involved and sublated in the end. All the lower phases are held in the higher phase, as Hegel would say, *aufgehoben* — that is, at once annulled and transcended and yet maintained as an element or moment in the higher reality. They are annulled and transcended in so far as they have been superseded; maintained, in so far as they are involved in and necessary to the emergence of the higher phase and their inherent possibilities are fulfilled in it. The coming to consciousness of mind, therefore, is the bringing to consciousness of the process of development. In becoming conscious the mind becomes aware of the process

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[8] Cf. Bosanquet, *Principle of Individuality & Value*, Chs. III & IV.

of becoming — i.e., of the world. But this consciousness is not in the first instance, explicitly of a world known to be the process of mind's own evolution. At first it is vague and confused, probably a mere awareness of 'something', with no very definite character. Later, when consciousness has become more developed, the world as an ordered system is taken to be an object external or 'closed' to mind, which now regards itself as somehow attached to one entity in a world of others, the others being the objects of its consciousness. It is not until the higher stage of self-consciousness is reached and only after a critical reflection upon the nature of knowledge, that the mind comes to know itself as the union of subject and object. This critical reflection is logic.

We must pause here to stress three important points: —

(a) that the development of conscious experience is a process of growing self-consciousness;

(b) that conscious experience, on which we reflect in logic, is not generated (as it were) *in vacuo*, but is itself the fruit of a long evolutionary process in Nature. As Bosanquet puts it: 'It is plain that whatever our ultimate view may be as to the position of mind in the universe, it does not come before us in the animal world, except as something which arises, so to speak, on top of a vast evolution and presupposes a long development of connections and formation of dispositions by help of which alone the principle which far down operates as if it were thought, can create for itself a field of consciousness and a self which is formed and full of determinations before it is aware of them or of its own distinct existence'.[9]

(c) The third point to notice is that the process of evolution in Nature is not recognized as the process of self-development of Mind, at any level of intellectual life of which logic is the interpretation except that critical reflection which is itself philosophy. In Hegel's Logic the theory of this reflective level of thought is not even the whole of the Doctrine of the Notion;

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[9] *Three Chapters on the Nature of Mind*, (London, 1923) page 86.

it comes only in its final consummation, the Absolute Idea,[10] and even there it amounts to no more than the explicit recognition of the unity of subject and object.

The first of these three points raises the question, Does the process of growing self-consciousness come to an end at the point where the self-conscious mind is able to reflect on and to expound a theory of its own knowledge — is the Logic the last phase of the process ? The second draws our attention to the fact that the critical study of explicit, conscious knowledge is not directly the study of the whole of reality, for even if all reality is mind it is not all mind in the form of explicit consciousness. Nature has its own place in reality, not merely as a more or less erroneous conception of the world, but as an actual form of mind's manifestation. The third point shows that the account here given of Nature is not characteristic of any stage of knowledge prior, in the scale of intellectual development, to the Logic itself. It is not part of the Logic and should, therefore, fall within a sphere of speculative study beyond and other than logic. For logic is reflection upon experience; and in the lower phases of experience Nature is not recognised as the manifestation, 'under the form of externality', of Mind. Nature in these phases is regarded as an object set over against the knowing subject, and though their identity is implicit all along, it only emerges in explicit form as the final result of critical reflection. The conclusion of the Logic is, therefore, presupposed by the philosophic account of Nature, and it is necessary to go on from the recognition of the unity of subject and object in knowledge to show just how the world is actually and in fact mind.

The belief held by some, that this demonstration is already accomplished in the Logic, is probably due to the influence of Kant. They have considered it sufficient to show that the con-

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[10] The theory of 'the Object' in the third part of the Logic is not an account of the Idea 'in the form of other-being'. It treats of certain ideas made use of in science which are higher in the order of concreteness than the correlations (e. g. 'cause and effect', 'whole and part', etc.) which are treated in the Doctrine of Essence.

ditions of any coherent experience of Nature are logical conceptions inherent in thought; so that Nature comes to be regarded as an ideal construction, a phenomenon or system of phenomena dependent for its character on the way we think. But Hegel asserted that the concepts (the categories) of logic were not only the principles which made the world intelligible but were 'at the same time the real essence of things'.[11] Such an assertion may, admittedly, be taken in either of two ways. It may mean that the world's *esse* is *intelligi*, or it may mean that the actual forms of existence in Nature are manifestations of mind. One who speaks of 'the Reason in being — Actuality' (*'die seiende Vernunft'*),[12] is hardly likely to hold the former view, and, if the latter is the right interpretation of the phrase I have quoted, the Kantian argument is insufficient to explain fully the real identity of mind and the world. A philosophical science to demonstrate in detail the immanence of mind in Nature is not only legitimate but necessary.

There is a further stage in the development of self-consciousness than that reached in the Logic. The Logic is, from one point of view (i.e., considered as the deliverance of reflective self-consciousness) the result of a long course of development (though from another point of view, that of its content, it is not). It is the point at which the mind comes to know itself as identical with its world, as the 'world come to consciousness'.[13] But the mind goes further, to know itself as the

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[11] *Enc.*, § 41, *Zusatz* (2)

[12] *Enc.*, § 6.

[13] That this is Hegel's view: that the 'thinking study' which is philosophy comes only after a long period of intellectual development, is clear from what he says in the *Encyclopädie* as well as from what he says elsewhere in his writings. Cf. *Enc.*, § 2 '...In religious, legal and moral matters, thinking, under the guise of feeling, belief or mental image, has not been inactive. Its activity and productions are present and contained therein'. Also, *Logik*: Preface to the 2nd Edition, where he says that the necessity of concerning oneself with pure thought presupposes a long development which the human spirit must have undergone. Here, also he speaks of the categories being 'put to use' in the activities of everyday life. Finally there is the famous passage about the Owl of Minerva setting forth on its flight only after some form of life has grown old.

spirit immanent in and developing throughout the process of evolution which is Nature, and which brings itself to consciousness in knowledge. The mind first sees itself as the world come to consciousness and then sees the world as the process in and by means of which that coming to consciousness is brought about. Having found its own identity with the world in knowledge, mind goes back to the world as Nature to view it as the process in and through which knowledge comes to be, and which, at the same time, comes to be the object (or content) of knowledge. As the process is throughout one of growing self-consciousness, it is a process at once of the emergence of the knowing mind and of the world's (the process itself) becoming known. Mind, in short, discovers its own immanent presence in Nature. This is how I propose to interpret the very obscure passage at the end of Hegel's Logic, which Schelling so strongly attacked, where we read of the Idea 'resting in itself', and 'secure in itself', 'resolving' to let 'the moment of its particularity go forth out of itself freely as Nature'.

The position, as a whole, may be outlined as follows: — Reflecting on the nature of Knowledge, we are brought in the Logic, to the conclusion that the knowing subject is identical with its object. This discovery is a turning-point in the growth of self-consciousness. Here thought, which has hitherto not been recognised as the immanent principle of things, but has been regarded as something only 'subjective', is found to be 'at the same time the real essence of things'. In other words, mind has become conscious of itself as the spirit immanent in Nature, and so has reached a new plane of self-consciousness. The Philosophy of Nature develops this position in detail, displaying Nature in every phase as a manifestation of mind (in the form of externality), up to that point at which consciousness emerges in its proper form. At this point, as the Idea went over into Nature in the course of the development of self-consciousness, so now Nature passes over into Spirit. Consciousness turns back upon itself to know itself absolutely. This it does in the conclusion of the *Philosophie des Geistes*, Absolute Spirit.

The much disputed transition from the Logic to the Philosophy of Nature is, therefore, simply the passage from one stage to the next in the development of self-consciousness. Mind comes to know itself even more fully and completely and in the higher stages of the development it is constantly turning back upon itself, making itself in the prior phase its object.[14] It makes itself, as knowledge, its own object in logic; it makes itself, as object identical with subject, as mind immanent in the 'external' world (the conception which forms the consummation of the Logic) its own object in Nature-philosophy; and it makes itself, as the emergent from Nature, its own object in the Philosophy of Spirit.

There are passages in Hegel which are admittedly difficult to reconcile with the view here suggested, especially that in which he expressly repudiates the idea of evolution in Nature as a process of continuous change from one phase to another. 'Nature', he says, 'is to be regarded as a system of grades of which one arises necessarily out of the other and is the proximate truth of that from which it results, but not in such a way that one is engendered *naturally* out of the other, but in the inner Idea constituting the reason (*Grund*) of Nature'.[15] He regards it as a sign of the essential opposition of Nature to the Idea that 'it leaves the differences starkly side by side'. The proverb 'in Nature there are no leaps' is true, he says, only of the Idea.[16] But, on the other hand, he does conceive Nature in accordance with some notion of development. The dialectic, which is continuous throughout the system, does run through all the forms of natural existence, and there are passages which indicate the view that this stark externality of particulars in Nature is itself to be explained as consequent upon the low stage of mind's development in Nature. 'Nature', we are told, 'is only implicitly the Idea, therefore Schelling called it "petrified" and others "frozen intelligence". But God does not remain stony and dead; the stones cry out and raise themselves to

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[14] Cf. *Enc.*, §§ 413 and 443, and *passim*.

[15] *Enc.*, §249.

[16] *Enc.*, §249, *Zusatz*.

Spirit'.[17] Not only is mind immanent in the petrified image, but it cannot rest in such petrifaction, it cannot 'remain stony and dead', but is urged by its inherent nisus to develop — to come alive and conscious. The repudiation of the idea of evolution in Nature is due to the fact that in Hegel's day the idea had not come to be, as it has today, almost a commonplace. To Hegel it must have seemed a very dubious hypothesis and his rejection of it, therefore, is really a sign of his sincerity, for it would have been a very convenient theory for him to hold and might have enabled him to avoid a number of difficulties.

Another apparent inconsistency of my interpretation with what appears in Hegel's writings is the view of the Logic which I have suggested. It may be said that Hegel could not have admitted at all that the Logic was a phase in a larger development. The Logic is, for him, 'The Word' of the opening verses of St. John's Gospel. Hegel himself describes it as 'the mind of God before the creation of Nature and Finite Spirit'.[18] The inconsistency, however, is only apparent. The Logic may be regarded in two different ways both of which are legitimate, each from one point of view. It may, (in fact it must) on the one hand, be regarded as the product of human thought or what the human mind is capable of thinking at a certain level of development. It may, on the other hand, be regarded from the point of view of its content as the system of universal concepts which constitute the intelligible, the eternal, essence of the world. That Hegel did not disregard the first of these aspects has already been shown,[19] and it is in the second only that we might describe Logic, ideally, as 'the mind of God'.[20]

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[17] *Enc.*, §247, *Zusatz*.

[18] *Logik, Einleitung*.

[19] *Vide* p. 223, n. 13.

[20] Hegel's discussion of the question concerning the eternity of the world (*Enc.*, § 247, *Zusatz*) should make it clear that this description of the Logic is not intended to be more than a metaphor — if indeed the whole spirit of his doctrine is not evidence enough. At least, he would never have maintained that 'the mind of God' was literally prior in time. Its priority is purely logical. After all, the Idea is only one aspect of the real; Nature is another. The two are united in concrete Spirit (Cf. *Enc.*, § 18).

Nor are the two views inconsistent, for though Logic is indeed the ideal system which is the intelligible essence of the world and is not subject to the limitations of space and time, it may still be true that this essential nature of reality comes to consciousness only at a certain definite level in the evolution of mind — implicit though it is in all the prior stages.

No doubt it is exceedingly difficult to say just how mind can be immanent in physical nature and by no means easy to explain the nature of the process of development. No doubt it does seem extraordinary that mind, having essentially a self-conscious nature, should manifest itself in forms which are utterly inadequate to its true character and so be compelled to develop out of these forms and to go through a long and arduous process of evolution in order to bring itself to consciousness. But the purpose of this paper is to try to show that an interpretation of Hegel's philosophy is possible which will justify the place in his system of the *Naturphilosophie*, and for that purpose it is not necessary to discuss these special difficulties or to attempt to meet them. Nevertheless, I do not believe that they are finally insurmountable, and much that Hegel has written indicates the line of attack to be taken. Nor, in any case, are they greater than the difficulties which beset rival theories, such as those, for instance, of Bergson, Alexander and Whitehead. The notion of Space-Time as a matrix is no stranger (especially after Alexander's account of it) than of mind universally immanent in Nature. *Dureé* and Bergson's *évolution créatrice* are no more intelligible than what has here been described as the process of mind's development, through natural forms, to eventual self-consciousness. And nothing in the view here suggested is more difficult to understand than the definition given by Whitehead of Nature as 'a process of expansive development, necessarily transitional from prehension to prehension'.[21]

The theory I have tried to outline follows naturally from Hegel's main idealistic position, for he declares that the rational

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[21] *Science and the Modern World*. (Cambridge, 1930). p. 90.

is the real, that thought is objective and that 'the truth is actual and must exist'.[22] 'It is the highest and final aim of philosophic science', he says, 'to bring about ... the reconciliation of self-conscious reason with the reason which is in being, with Actuality'.[23] If Hegel is serious in these statements he must be prepared to demonstrate the 'reason which is in being'. He must show how 'the truth is actual' and how it can 'exist'. The fulfilment of these requirements is the *Naturphilosophie*, which, so far from being inconsistent with his idealism, is required by it. And if this be accepted as the Hegelian view of Nature, it shows the Logic in a new light and overcomes the difficulty which the Bradleian finds in the *Naturphilosophie*.

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[22] *Enc.*, §38, *Zusatz*
[23] *Enc.*, §6.

KANT, PATON and BECK

An examination of *The Categorical Imperative. A Study in Kant's Moral Philosophy*. H. J. Paton, University of Chicago Press, Chicago, Ill. pp. 283, 1948.

Immanuel Kant, *Critique of Practical Reason and other Writings in Moral Philosophy*. trans. by Lewis White Beck, Chicago, Univ. of Chicago Press, 1949, pp. xv, 370.

There was a time when it might have been said with truth that English-speaking philosophers, save for a few notable exceptions, failed to understand the main points of Kant's critical philosophy both in its theoretical and its practical aspects largely because they did not take the time and expend the effort to follow his argument through all of its intricacy including its confusing restatements and even its contradictions. The work of Professor Paton has done a great deal to change all this. The present volume on Kant's moral philosophy, together with his former work on the first *Critique*, entitled *Kant's Metaphysic of Experience*, constitutes the most careful and extended discussion of the Kantian philosophy to be found in the English language.[1] And if Paton can at times be charged with being overly generous to Kant in his interpretations, he is at least devoted to the essential task of trying to clarify Kant's thought and to discover exactly what he intended to assert, which is a purpose considerably more significant than has been the purpose of those many critics who have wanted only to prove that Kant, whatever he may have been asserting, was wrong.

Although Paton depends for his materials on virtually all of Kant's writings on moral philosophy, he makes the *Grundlegung zur Metaphysik der Sitten* central to his analysis. This is

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[1] As a commentary in English on the *Grundlegung*, the work of J W. Scott, *Kant on the Moral Life*, London, 1924 should not be overlooked.

a wise choice and one that is defensible [2] since Paton has set for himself the task of elucidating the categorical imperative and it is in the *Grundlegung* that Kant sought to grasp the supreme principle of morality and its appearance to us as a categorical imperative. Despite the fact that, as the author points out on many occasions, the *Grundlegung* neither stresses morality from the standpoint of action (a factor which has led to no end of misunderstanding in the past), nor does it deal in detail with many significant problems, it must nevertheless always be looked upon as central to Kant's ethics just because it does deal with the supreme principle as a categorical imperative. The seemingly more authoritative *Critique of Practical Reason* is more definitely concerned with the larger subject of reason in its practical employment [3] and does not deal as directly with Paton's special concern as the *Grundlegung* does.

The exhaustiveness of Paton's treatment is certainly exhausting, and on this account it is difficult to know where to begin in discussing the book. Surely there is no possibility of considering all the issues raised, concerning either Kant's view historically, or ethical theory systematically. Perhaps the most satisfactory method is to give a brief outline of what may be called the main drift of the book and then call attention to certain parts of the interpretation that might well be the subject of further discussion.

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[2] I suppose that it may always be possible to criticize Paton's interpretation either by taking very seriously some of Kant's *marginalia* on textbooks not taken into account in this volume, or by claiming that the *Grundlegung* is not as important as Paton takes it to be. Such criticisms can be met by pointing out, first, that the *marginalia* method is most often a device used by pedants alone and not likely to be of the greatest importance in philosophy, and second, that Kant himself regarded the *Grundlegung* as very important. See Schilpp, *Kant's Pre-Critical Ethics*, 90ff. for confirmation of this latter point.

[3] It should be noted that Paton is right in saying that Kant does not set out to show, not even in the second *Critique*, how reason can become practical, or, what is the same question, how freedom is possible (205). These *theoretical* questions Kant set aside as beyond the power of the speculative reason.

The precise nature of Paton's enterprise needs to be made clear and emphasized at the outset. This is not a work of interpretation in the sense that it is an attempt to show the meaning of Kant's moral philosophy by reference to some other philosophical system as, for example, Hegel interpreted philosophers and their works in his *Lectures on the History of Philosophy* according to his own system. It is rather a work of *exegesis* (which is a form of interpretation, if this term is used in the precise sense given to it by both Royce and Peirce) which seeks to make clear exactly what Kant was asserting. Paton begins with the perfectly correct, but often neglected, assumption that some clear idea of what a philosopher actually said must precede all discussions of whether or not his position is defensible. The book is more than a labor of exegesis, however, since Paton is ready to break a lance for Kant's view of ethics at points where he believes that view is correct.[4] Consequently *The Categorical Imperative* contains along with painstaking exposition, some systematic discussion of the problems raised by Kant's moral philosophy, particularly in relation to current ethical theory.

Since it is the special task of the book to set forth Kant's view of the fundamental principle of morality as outlined in the *Grundlegung*[5] (together, of course, with appropriate references from Kant's other works) Paton's analysis follows the pattern of Kant's argument in that work. The commentary is divided into four books; the first is largely introductory dealing mainly with Kant's characteristic method and briefly with such key concepts as good will, duty, reverence and law; the second discusses the nature of reason, particularly practical reason together with the idea of a moral imperative; the third

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[4] The Kantian influence on Paton's own views may be seen in a recent essay "The Alleged Independence of Goodness" in *The Philosophy of G. E. Moore*, pp. 113-134.

[5] Paton prefers to translate this title as "Groundwork of the Metaphysic of Morals". Technical "groundwork" is closer to *Grundlegung* than the customary "fundamental principles," but the latter still seems to me the most suitable except perhaps for "foundation" which is good and is used by L. W. Beck in his recent translation.

is wholly devoted to the five distinct though related formulations of the categorical imperative Paton finds in Kant; and the last book treats of the justification (transcendental deduction) of the categorical imperative and is based largely on the third section of the *Grundlegung* (446ff. = 78-9ff.).[6] In each of these books Paton sets forth what he takes Kant's view to be, supplementing his statements with related passages from the Critiques and from the *Metaphysik der Sitten*, and discussing the subject critically, always keeping in mind what contemporary critics have to say. There can be no question that Paton states and defends Kant's view very well and I find myself in sympathy with the main body of the interpretation. There are nevertheless certain points that bear further consideration and these will appear in the more detailed discussion that follows.

In his description of the critical method of Kant (19 ff. which, incidentally, is well done, including elucidation of such terms as *a priori*, transcendental etc., and repeated emphasis on the highly important fact that a critical philosophy is concerned not with objects but with the structure and function of reason, 28, 78 ff., 223 ff.), Paton calls attention to a certain basic duality in the critical philosophy having to do with the status of the categories. The categories resulting from critical analysis, Paton points out, must be seen as both present in all experience and at the same time necessary conditions of the validity of all experience. Failure to recognize this duality may lead to just the type of misunderstanding of Kant's position which Paton attempts to combat. For unless the dual significance of the categories is taken into account it will inevitably be thought that the categories are not found in experience but in the "mind" and that consequently they are imposed from without in a purely psychological sense on experience that is "raw" and formless. Such a view is untrue to Kant as Paton has already in-

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[6] Throughout the text Paton gives *Grundlegung* references to both the Berlin Academy ed. and the ed. of Rosenkranz and Schubert, 1838, the latter being the ed. from which Abbott made his translation and to the pages of which he refers.

dicated, because he did not intend (despite the language of the A edition of the first *Critique*) to give an account of a psychological process in its temporal succession, but rather a logical analysis uncovering the logical relations between the constituents of experience taken as a complex whole. The task of a critical philosophy, Paton rightly maintains, is to begin with experience, formulated as knowledge, and then to discover the *a priori* elements in it. These elements, it must be remembered, though ultimately part of the structure of reason, are on that account no less *a part of* or *contained in*, the judgment, theoretical or practical, with which the analysis began. It is true, however, as Paton says (27), that the precise sense in which the transcendental conditions finally arrived at in critical philosophy are contained in the starting point, is not made clear by Kant.

In addition to the above there are two other noteworthy considerations in Paton's treatment of Kant's method. The first concerns Kant's appeal to the common or "ordinary human understanding" [7] as providing the initial moral judgments with which analysis begins (24, 25, 34, 248), and the second concerns the question of whether or no critical philosophy necessarily requires some kind of direct insight, or appeal to self evidence, for the justification of its *Grundsätze*, particularly in the domain of practical reason (27, 28, 245-6). I shall discuss these two considerations in order.

In setting his task in the *Grundlegung* Kant proposed to discover the supreme principle of morality implicit in the moral judgments made by ordinary practical reason. In short, Kant *began* his analysis with the moral judgments we all make. Paton recognizes this, but he seems not to be sufficiently aware of the extent to which Kant appealed to common human understanding not only for his starting point but also for the ultimate justification of his moral philosophy.[8] It is not that Kant re-

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[7] *"Der natürliche gesunde Verstande," Grundlegung* 397=16. Cf. *"der praktische Gebrauch der gemeinen Menschenvernunft", Grundlegung*, 455=89.

[8] See R. Kroner, *Kant's Weltanschauung*, 17, for a striking quotation from Schiller, tending to confirm this point.

verted to an empirical ethic based on a kind of referendum of practical reason (25) since he sought an *a priori* principle in ordinary judgments. But nevertheless the fact remains that for all of Kant's emphasis on the *a priori* and his discussion both of the possibility of the imperative and of freedom in relation to autonomy as the key to its justification, the ultimate justification of his view is always an appeal to what human reason in its practical employment delivers (see p. 262). Directly following the passage in which Kant maintains that membership in an intelligible world through the idea of freedom makes possible the *a priori* synthetic proposition which the moral imperative properly is, he says, "The practical use of common human reason confirms this reasoning."[9] And Kant goes on to suggest that even the worst villain, "provided only that he is otherwise accustomed to the use of reason," views himself as a member of the intelligible world and therefore in the way required by the theory. I am inclined to believe that although Kant saw the need for critical analysis in practical philosophy (since the ordinary understanding does not explicitly know either its basic principle or the problems involved in its formulation and justification), he always believed that the final guarantee of the correctness of his position rested in its conformity with the ideal of a good will and a good character held by every man possessing sound human reason. In the case of the moral imperative Kant attempts both an exposition (*Exposition*) and a deduction (*Deduktion*), but his final court of appeal is always reaon in its practical employment as a source of moral principles.[10] Paton does not seem to take this point sufficiently into account and consequently he does not deal with a question which has considerable relevance at present: How close is Kant's ultimate dependence on practical

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[9] *Grundlegung*, 454-5=88. I follow the translation of Abbott; the German is even stronger, *"Der praktische Gebrauch der gemeinen Menschenvernunft bestätigt die Richtigkeit dieser Deduktion."* See also the note on 93 in Abbott, 3rd ed. Cf. 96. H. Cohen also singles this note out for comment in his *Kants Begründing der Ethik*, 179 ff.

[10] Cf. Cohen, *op. cit.*, 178. *"Also gibt es im strengen Sinne keine Deduktion des moralischen a priori."*

reason to contemporary common sense theories of ethics, dependent as they are on ordinary moral judgments ?

Closely related to the preceding, is the question of the extent to which critical philosophy (particularly in the practical sphere) is dependent on direct insight or intellectual intuition both for the grasp and the defense of its *Grundsätze*. Discussion of this question is complicated by the fact that Paton does not distinguish clearly between *grasping* a principle by direct insight, and *justifying* a principle by direct insight into its truth or its necessity. At times he means the former and at others the latter, particularly at that critical point in his analysis where he speaks of the "failure of the deduction" (244) and goes on to suggest that direct insight into practical principles would make up the deficiency. The whole problem of direct insight appears to give Paton a great deal of concern (27-8, 244-5, 262), and it looms larger here than it did in his former work, *Kant's Metaphysic of Experience*.[11] Kant, as is well known, distinguished between an intuitive and a discursive understanding [12] and he consistently denied that the human understanding is intuitive in character. If we add to this the fact that, as Paton says, "He (Kant) believes that a philosopher should be very wary of alleged self-evident propositions" (28. Cf. *Critique of Pure Reason*, A 233 = B 285-6, B 188) any appeal to the self-evident character of *Grundsätze* would seem impossible on Kant's principles. Kant's says (B 188)[13] that *a priori* principles are not grounded in any higher and "more universal modes of knowledge," and that they are not derived

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[11] It is true that there is not an exact parallel between the critical problem in both pure and practical reason. In the latter case there is, of course, as Kant often noticed, no possibility of exhibiting what is *a priori* in the sphere of sense, and this constitutes a sharp difference from the situation with respect to theoretical reason.

[12] *Inaugural Dissertation*, 10, *Critique of Pure Reason*, B135, 145, *Critique of Judgment*, 77. I must confess that I am not sure whether this distinction is relevant to the question whether or no *Grundsätze* are intuitively grasped. In at least two places (100-3, 245) Paton takes the distinction to be relevant.

[13] See *Kant's Metaphysic of Experience*. II. 97.

either from objects or from other principles (B 198). Nevertheless these principles are not based on intuition either; rather they are dependent (and this is what Kant regarded as the peculiar feature of his critical philosophy), on a "transcendental deduction" or an analysis showing their necessity as conditions of possible experience. Kant obviously believed that any appeal to self-evidence would mean the giving up of criticism, hence he resorted to the unique mode of justification of principles which he called transcendental deduction.

I should have thought that Kant's position was tolerably clear on this head, and Paton seems to have thought so too in his former work for there he states it without any extended comment.[14] Yet in the present work, both in the discussion of Kant's method and in the consideration of the autonomy principle, Paton holds that in the process of its justification "a proposition which in some sense is self-evident" (245) seems inescapable. He does not see how it is possible for Kant to establish the supreme principle of morality without admitting that we have "direct insight into the principles of rational action" (*Ibid.*) and he even maintains that "in the last resort Kant claims a special and direct insight into the necessary activity of a rational being" (246), citing the *Anmerkung* to Book I, Sec. 6 of the *Critique of Practical Reason*[15] in support of his view. I do not want to be over-critical, especially since I understand well enough the force of the considerations Paton has in mind (particularly the point (245) that an endless series of "third terms" will be required in the deduction of the imperative), but Paton has overlooked at least two things here: first, the passage he notes from the second *Critique* does not justify the assertion that Kant claims any such direct insight as Paton finds necessary, and second, it might be the case that we have what Paton calls "direct insight" into the necessary activity of a rational being without such insight being intuitive. I shall now consider these two points briefly.

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[14] *Kant's Metaphysics of Experience*, II. 97, 368-9.

[15] Abbott, 117-18.

Kant, in the passage just mentioned, says that we become conscious [16] of practical principles in the same way that we become conscious of theoretical ones "by attending to the necessity with which reason prescribes them." [17] The question is, Does this "attending to" mean direct insight or does it refer to discursive thought? It might be maintained that the *moral agent* is directly aware of (in "attending to") the obligatory character of the law as soon as he understands it, but this of course requires the interpretation of signs and can hardly be said to be the result of direct insight. The *moral philosopher*, on the other hand, always arrives at principles by analysis and I do not see how the "attending to" in his case can be called direct insight. Again, one of the central doctrines of the critical philosophy is that the *a priori* is discovered through analysis and, when discovered, it is not declared to be the result of direct insight, but must be "justified" by a transcendental deduction which is, of course, discursive.

It is possible that Paton has been misled by his own expression "direct insight." It will always be true that when the objective of our knowledge is ourselves or some aspect of ourselves (as it is in the analysis of practical reason) we stand in the unique position of being at the same time the knower and an instance of what is to be known. In this sense we might be said to have a direct insight since obviously we shall never "know" what it is to be a tree or a stone in the same sense as we "know" what it is to be a bearer of practical reason. Yet it is possible and highly probable that though we have direct insight in this sense, such insight is not intuitive, but

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[16] The expression "become conscious" (Abbott) is ambiguous since it may be taken in either a psychological or a logical sense. The translation in L. W. Beck, *Critique of Practical Reason* etc., "can come to know" (*Wir können uns bewusst werden*) is better. Kant's analysis is, I believe, always a logical one.

[17] Beck and Abbott are at one in rendering the awkward, *"wir auf die Notwendigkeit..... Acht haben."* German in Rosenkranz ed. VIII. 140, Hartenstein, V. 31.

discursive, requiring analysis and the interpretation of signs.[18] If we bear in mind Kant's repeated assertions, both in papers before 1770 and in the first *Critique*, that critical philosophy proceeds by analysis and justifies its *Grundsätze* by showing their relation both to possible experience and to the employment of reason, we shall not be inclined to say that Kant, at least, appealed to direct insight. If, however, Paton, is claiming that Kant was in error and that his position either assumes or requires some appeal to self-evidence for the *justification* of fundamental principles (whether he recognized this or not), that is another matter. The answer here depends on whether or not Kant's appeal to the common moral consciousness implies any claim of self-evidence, for I believe, as I noted above, that Kant always appealed to this consciousness for the ultimate justification of his moral philosophy. Further consideration of the matter would, however, take us too far afield.

In a brief discussion (76 ff.) of the oft-repeated question, Does Kant require a good man to ignore the consequences of his actions? Paton carefully points out that to answer yes (as the utilitarians generally have done) is to misunderstand Kant and to caricature his view, despite the fact that Kant's own language often testifies against him on this head (e.g. *Grundlegung*. 40-1). Paton deals with this problem by saying, "If Kant had said merely that we must not allow our desires for particular consequences to determine our judgment of what our duty is, he would have avoided a great deal of misunderstanding" (76). A careful reading of Kant's statements will substantiate Paton's view.

There is, however, an aspect of the problem of consequences which Paton does not discuss and it is to be found in the criticism advanced, for example, by Blanshard[19] according to which the question whether or not any proposed law is *consistent* with itself (i.e., can be consistently willed) depends

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[18] I believe that Peirce's arguments on this head are sound. *Collected Papers*, 5, 213 ff.

[19] *Preface to Philosophy*, N.Y. 1947, 148-9.

for an answer on an appeal to states of affairs resulting from actions (consequences) and not on the discovery of a formal contradiction in the law as stated. It cannot be denied that in Kant's enumeration of a "few duties" (*Grundlegung*, 47 ff., Abbott, 39 ff.) the alleged inconsistencies in the proposed laws which are the mark of their inadequacy is always based on a recognition that if the courses of action they enjoin were adopted by everybody, a state of affairs would result which, according to Kant, "would contradict itself" (*Grundlegung*, 48). Leaving aside the problems involved in holding that "states of affairs" can contradict themselves, it must be admitted that Kant himself always looked to what *would happen* if such and such a line of conduct were to be pursued by everyone, and consequently to the *results* of action rather than to any formal inconsistency in the formulation of the law to be tested. Such a difficulty is by no means fatal to Kant's view and I believe it can be dealt with on his theory. Nevertheless Paton should have considered this typical objection in his discussion of common misunderstandings and objections to Kant's views.

The next matter worthy of note is Paton's interpretation of Kant's distinction between the sensible and the intelligible worlds, particularly in its bearing on what he calls "Kant's additional argument" for the solution of the circularity problem between freedom and autonomy (226 ff.). The first point to be noticed is that, according to Paton, Kant does not have two *worlds* on his hands, as is generally thought,[20] but rather two points of view from which our one world is seen or regarded. It is true that Kant's language seems to run counter to such an interpretation since he often speaks of different "worlds" or "realms". But if the concern with the *standpoint* of the knower, so characteristic of the critical philosophy, is taken into account along with Kant's comparison of his thought to the revolution wrought by the Copernican theory[21] and its introduction of

[20] Dewey's entire analysis in *German Philosophy and Politics*, for example, is based on the view that Kant, among other German thinkers, had two *worlds* to cope with.

[21] In another place (*Mind*, vol. XLVI, 1937, 365-71) Paton has treated, and I believe settled, the much-discussed problem of what Kant's comparison means. Kemp Smith's *Commentary* gives further details.

the viewpoint of the observer as a significant factor, Paton's interpretation can well be defended. When Kant introduces the doctrine of the two standpoints in an attempt to defend his view of the relation between freedom and autonomy from the charge of circularity, he is pointing out that there are actually two different points of view from which we regard ourselves and that consequently we are members both of the "worlds" of sense and of understanding. When we consider ourselves as *objects* in the phenomenal world (228) we are subject to causal law in precisely the same sense as are other constituents of the system of nature; when we consider ourselves as *subjects*, i.e., as possessing a will, we are free and capable of self-determination (*Grundlegung*, 452 = 85-6). Kant could hold both of these doctrines together, according to Paton, because of the distinction between points of view. "There is," he says, "only one world, but it can be looked at from two different points of view" (228).[22]

Kant makes use of this distinction of standpoint in what Paton calls the "additional argument" (*Grundlegung*, 453 = 87-8), a part of the general defense of the moral imperative. This part of the argument is greatly telescoped by Kant and Paton carefully restates it in the form of three propositions such that the second is supposed to follow from the first and the third from the second as follows:

A. The intelligible world contains the ground of the sensible world.

B. Therefore the intelligible world contains also the ground of the laws of the sensible world.

C. Hence the intelligible world is, and must be thought to be, the source of laws immediately governing my will (which belongs wholly to the intelligible world) (250-1).

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[22] See 267-8, 276 for a brief discussion of problems connected with the idea of two standpoints.

Kant's text actually contains these three statements as constituents of one sentence, and only the first two, as Paton notes, are emphasized by italics. The third statement is not stressed, and Paton believes it might well be omitted since it "palpably fails to follow from the previous ones" (251) and adds nothing new. For, as is pointed out, Kant's task is not to re-establish the thesis that the laws of the intelligible world must be conceived as governing the will, but the thesis that there is no contradiction in holding both that my will belongs to the intelligible world and my actions to the sensible. Paton is correct in saying that Kant's argument requires something different from what C supplies, but it is surprising that Paton did not, despite his unceasing attempt to get at Kant's meaning (even if he was wrong), go on and try to say something about what Kant had in mind even though he may have blundered in expressing it. Propositions A and B, it is true, assert a definite relation between the sensible and intelligible worlds, while C asserts a relation between the intelligible world and a will which belongs wholly to that world. Logically C does not, of course, follow from A and B, but it seems to me that what Kant had in mind is relatively simple; if the intelligible world is both the ground of the sensible world and of its laws, then the intelligible world is *a fortiori* the ground or source of laws immediately governing a will which as Kant says, "belongs wholly to the intelligible world." This, it is true, does not follow from what precedes it in Kant's argument but it is probably what he had in mind.

The point has often been made [23] in discussions of Kant's ethics that his concept of freedom is ambiguous (or has two parts) since it means both the *power of self-determination* or the absence of any determination from without, and that *particular self-determination which is morally good* because wholly in conformity with the moral law. That the term freedom has

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[23] Most pointedly by Sidgwick both in *Methods of Ethics*, Bk. I., Ch. v. appendix on Kant's conception of free will, and in *The Ethics of Green, Spencer and Martineau*. 15 ff.

both these meanings in Kant cannot be denied,[24] but just because a concept has several parts it does not follow that every argument in which it appears is thereby vitiated. If critics of Kant would only take the pains to follow his argument carefully, as Paton does (207 ff.), they would discover that not only was Kant aware of the double meaning of his concept but also that it plays a significant part in his argument. Paton rightly points out that Kant distinguished between the *positive* and *negative* senses of freedom,[25] regarding the latter as the transcendental idea of a freedom opposed to necessity, and the former as true moral freedom identical with the principle of autonomy. Though the same term is often used by Kant to refer to one aspect of freedom or the other, there is no need for this to cause any difficulty of understanding if only the context is taken into account and the fact be borne in mind that Kant has called attention to the distinction himself.

There is one part of Paton's discussion (233 ff.) that is of peculiar importance to contemporary ethical theory and it has to do with Kant's idea of the noumenal self. For all of its difficulties, Kant's idea that the set of appearances constituting the self stands in need of a ground [26] not identical with any member of that set, is one which is not easily to be set aside and one which, I believe, is required for an ethical theory which is to take account of all the facts. Paton says, in referring to the noumenal self as necessary for explaining the fact of self-consciousness, "If this be a superstition, it is one which is at least difficult to avoid" (234). And one may well go on to ask, first, whether the idea of a noumenal self is one we want to avoid (since for all anyone has proved, apart from invoking Occam's razor which begs the question, it may be a reality), and, second, whether phenomenalists have successfully dis-

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[24] They are clearly stated in the second *Critique*, Abbott, 122.

[25] E. g. in *Grundlegung*, 78.

[26] "Ground" means that the appearances are appearances *of* something. The parallel here with the world of sense objects in Kant is exact: just as the appearances of objects need a ground, so do the appearances of the self.

pensed with it or something like it themselves. Hume, for example, does not seem to have realized that in his supposed refutation of a substantial self he said too much when he referred to the impressions as being in a "bundle," as he likewise seems to have overlooked all the difficulties for his view raised by the occurrence of the term "I" a dozen times in his famous passage. All this is highly significant at present since one of the glaring deficiencies in current ethical theory is the failure to take into account both the fact of self-consciousness and the fact of a continuing personality. Ethics cannot be confined to the evaluation of atomic deeds separated from the moral character of the doer as an enduring self (cf. 253). That some doctrine of a permanent self is required for a sound ethical theory was shown long ago by Bradley. It is certainly one of the merits of Kant's view that he dealt with this problem.

In addition to all the above-mentioned points there are many other noteworthy parts of Paton's discussion which cannot be considered here; the suggestion that the autonomy principle might be analytic (246), the discussion of the relation between ethics and metaphysics in Kant (255-6), the analysis of the kinds of heteronomy in relation to autonomy (212 ff.), and especially Paton's whole section on the formulation of the imperative.[27] In concluding, however, there is a short section on the relation between thought and action (263 ff.) to which I want especially to call attention. Here Paton wisely points out that the moral philosopher "cannot argue men into being good" precisely because the living of the good life, though it should be rational in character, is not so completely an intellectual affair that moral insight and conviction can be gained from reasoning alone. Paton emphasizes the need for moral experience as a prerequisite to moral understanding and judgment, and, in reflecting the whole spirit of Kant, he con-

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[27] This is a complicated affair and should perhaps have been discussed in the text. Kant speaks as though there were *three* formulations; Paton finds *five* but seeks to adjust these to Kant's mention of three; Kantians have almost invariably spoken of *two* formulations as, for example, Cassirer does in *Rousseau, Kant, Goethe*, 32.

cludes, "do not make the absurd mistake of supposing that you can understand and judge the moral life without any personal experience, a mistake which you would never dream of making in regard to any other kind of human activity" (264).

Beck's volume contains English translations of Kant's most significant writings on ethics and it is welcome indeed since Abbott has been unavailable for some time. The following works are included in their entirety (I give the titles just as they appear in this new translation): *An Inquiry into the Distinctness of the Fundamental Principles of Natural Theology and Morals*, 1764; *What is Enlightenment?*, 1784; *Foundations of the Metaphysics of Morals*, 1785; *What is Orientation in Thinking?*, 1786; *Critique of Practical Reason*, 1788; *Perpetual Peace: A Philosophical Sketch*, 1795; *On a Supposed Right to Lie from Altruistic Motives*, 1797. In addition to the above, the editor has also included translations of two sections from *Die Metaphysik der Sitten*, 1797, the first of which is the *Beschluss* completing the second part of the *Rechtslehre*, and the second consists of some passages from the *Einleitung* to the *Tugendlehre*. This last selection (pp. 352-57), short though it is, is one of the most important in the book for it contains Kant's specification of concrete ends and duties together with some explication of the concepts of perfection and happiness. All those interested in Kant's thought and especially those engaged in interpreting it, will be pleased to have in English some concrete evidence with which to meet the oft-repeated charge that Kant's ethics is purely "formal" and totally lacking in practical relevance.

The translations, as Beck notes, are based on Cassirer's edition of Kant's works with the exception of *On a Supposed Right to Lie* which is based on the text of the Prussian Academy edition since this short paper does not appear in Cassirer's. The translator has also made use of the many textual emendations proposed by various editors and commentators such as Adickes, Vorländer, Hartenstein, Natorp and Paton.

There can, I believe, be little doubt of the superiority of these translations over any other renderings of the moral writ-

ings of Kant in English (I have not yet seen H. J. Paton's new translation of the *Grundlegung*). Not only are they based on the most carefully edited texts, but they are made in the light of the wealth of critical scholarship that has gone into the study of Kant since the latter part of the last century when Abbott made his translations. Beck has turned out English prose which reads very well, and those who are familiar with Kant's complicated sentence structure (especially the long subordinate clauses and the ambiguous demonstratives) know that this is no easy task. As far as I have been able to discover, the translator has faithfully reproduced the meaning of Kant's texts. One minor question might be raised concerning a title. Beck has translated the *Grundlegung zur Metaphysik der Sitten* as "Foundations of the Metaphysics of Morals" and this title, it is true, has the advantage of preserving the parallelism with the *Metaphysische Anfangsgründe der Naturwissenschaft* which Kant no doubt intended. However, I am not sure but that Abbott's expression, "fundamental principles," is accurate enough to stand. Nevertheless Beck's title is better than the awkward "Groundwork..." proposed by Paton both in his commentary and recent translation.

In addition to the translations, the editor has provided an introduction of considerable scope which deals mainly with the ethical orientation of Kant's thought. To this we must now turn since it contains an analysis of considerable importance for students of the Kantian philosophy. According to Beck, the issue which is central to Kant is the incompatibility between the scientific picture of the physical world, including man, as a vast mechanism on the one hand, and man's use of his knowledge in an undeniably purposive way, on the other. This is a clear statement of the philosophical dilemma of Kant and of his period, as his most comprehensive work, the *Critique of Judgment*, shows, and, in beginning with this underlying problem, Beck's approach has the merit of calling attention to the fact that Kant's thought *as a whole* must be seen as an attempt to resolve this fundamental problem. Too often preoccupation with the technical details of the critiques (absolutely necessary though this is) leads to neglect of Kant's

thought as a whole, for, despite the artificialities of his architectonic, Kant's philosophy is systematic and his writings all conspire towards a resolution of the basic dilemma which Beck has stated and elaborated so well. The introduction deals in the main with Kant's explanation of morality as found in the moral treatises, but it contains as well a brief, but clear, statement of the relation of the first *Critique* to Kant's ethics (particularly the import of the antinomy, 12ff.), and some indication of the always difficult connection between religion and Kant's moral or rational faith (45ff.). The introductory essay is particularly successful in clarifying the meaning of the "primacy of practical reason" in Kant. Beck, following, I believe, the lead of Richard Kroner's *Kants Weltanschauung*, correctly sees that the strictures placed on knowledge by Kant do not lead to any simple exaltation of the will considered solely as power, but that these strictures are an "expression of the moral injunction that we *ought not* to know" (14; cf. 48-9.).

There are some portions of Beck's essay that might well be discussed further and I shall now turn to them. On p. 8 he says that "all rational knowledge" consists of "a priori synthetic judgments," and on the following page he calls attention to Kant's discovery that "the *basic propositions* in these fields of knowledge (mathematics and natural science) were both synthetic...and a priori" (italics mine). This is liable to cause some confusion, for the fact that Kant often referred to science *proper*[28] as absolutely certain (that is, universal and necessary) in its assertions has given rise to the mistaken notion that he considered all scientific knowledge to be a priori, a view which might seem to be endorsed by the expression "all rational knowledge." Actually, in the case of physics Kant held that only the "pure" part, what Beck calls "basic propositions," is a priori, while the remainder is empirical. If by "all rational knowledge," however, Beck means the "basic propositions," then he is correct and my criticism is nothing to the point. Nevertheless the fact that there has been some confusion

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[28] See the Preface to the *Metaphysische Anfangsgründe der Naturwissenschaft*.

on this head in the past, and also the fact that, in the case of mathematics, which is different from that of natural science, Kant seems to have held that *all* its propositions (with the exception of some propositions which "serve only as links in the chain of method and not as principles," and are analytic, B 16) are a priori, there is some warrant at least for raising the question.

On p. 25 Beck, in attempting to deal with certain critics of Kant's ethics, is led to mention "Christian dualism" as responsible for the subordination of the senses in morals. This dualism, I take it, is supposed to be one of reason versus sense. The reference is puzzling and it seems to reflect a popular misinterpretation of the classical Christian position. Although there is a time-eternity dualism in Christianity, and a certain antithesis between *spirit* and *flesh* (which is *not* an antithesis of reason and sense), apart from the survivals of these Greek influences, there is no definite strain in classical Christianity which bifurcates man and subordinates the sensory aspect of his nature. It may be noted that Kant, to the extent to which he stresses the opposition between reason and sense, is closer to Plato than to Christianity.

I want especially to call attention to Beck's fine statement (37-9) of the sense in which the ideas of reason are related to practice. He makes the relationship clear by exhibiting another relationship, that between freedom and purpose as analysed by Kant in the *Critique of Judgment*. The ideas of reason, freedom and purpose, on this interpretation, become practical in their respective domains of reason's employment by becoming regulative principles. Also worthy of note is the discussion of Kant's relation to hedonism (42ff.), especially the considerations which lead Beck to point out the all-important fact about Kant's ethics that on his view "the entire argument on altruism versus egoism is not... a moral problem at all; at most it belongs to casuistry" (45).

There is one final question to be raised and that concerns certain references to historical movements which are not very specific. On p. 47 Beck speaks of "practitioners of *Lebens-*

philosophie today" who are guided by "a posteriori subjective wants" instead of by reason. I suspect that the reference is to "existential philosophy" and, if so, there is some room for disagreement, but since it is not clear to whom Beck is referring here, the point cannot be further discussed. There is likewise a lack of specificity in the reference to the "Romanticist's sublime dreams" (*Ibid.*). True though it undoubtedly is that "if reason does not legislate, force will replace it," the fact remains that it is always false historically to connect Romanticism too simply with the cult of force. For, the great Romanticists were the defenders of freedom in every sphere, while rationalism, throughout human history, has gone hand in hand with political absolutism.

Professor Beck has placed us all in his debt by these fine translations. They will be standard for some time to come. I have noted two misprints: p. 30 "where" for "were", p. 35 "of" for "or".

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A PHILOSOPHICAL LOGICIAN

An Examination of *Logical Studies*: by Harold Henry Joachim. Oxford, The Clarendon Press, 1948. pp xii, 296.

The late Wykeham Professor of Logic at Oxford used to lecture twice a week on such subjects as 'The Judgment', 'The Universal and the Individual' or simply 'Logical Studies'. The lectures delivered under this last title have here been gathered together, and supplied with a helpful preface and index, by Mr. L. J. Beck of Merton College. These lectures, of course, were given to undergraduates; there is no 'graduate school' at Oxford. Not many teachers whose business it is to speak to college classes would care to have their performances frozen in type precisely as they gave them, and delivered over in this form to the eyes of colleagues and critics. Joachim's lectures stand the test. He was too self-critical and self-distrustful to lecture from notes, however full; he would have shuddered at the inexactness involved; and he would have been as disdainful as he was incapable of any form of popular appeal. His lectures were essays, composed with fastidious care in his study and read word for word —read, too, through thick glasses, in a quiet voice, and at an unchanging pace. He did not feel called upon to make concessions to his hearers. Either they were bent, like himself, on exact scholarship and exact truth, or they could go elsewhere for their nourishment. When Joachim dealt with the *Posterior Analytics*, or Descartes's *Regulæ*, or Hegel's *Encyklopädie*, or one of Gilson's *Études*, he assumed that his students would want to know what the author had said in his own tongue; he assumed that he was talking not to beginners in search of a substitute for a textbook, but to mature minds eager to try a fall with the great philosophers.

To some students this method was too uncompromising for human frailty. To others, while chastening almost to despair, it was immensely stimulating; and the writer of this notice, who had the privilege of working with him for three years, falls emphatically in the latter group. Joachim was a remark-

able teacher who had no use for the arts and devices of the teacher. He gained his effect through the purgative influence on his pupils of his rare singleness of mind. Frail of body, shy, deficient in animal spirits, he was still so obviously and wholly interested in the truth of the matter, so scrupulous in scholarship, and so just in statement, so incapable of glossing over difficulties with rhetoric, so reverent of the great philosophers and so modest about himself, that one's hours with him were memorable lessons in the patience and the discipline of good work. Though the discipline was rigorous, one was given to feel that something of great price lay at the end, nothing less indeed than a vision of reality. Logic in his hands was no mere razor-honing, nor was it a manipulation of symbols according to rules, nor yet a rattling of semantical dry bones; it was a study of the nature and conditions of intelligibility. And since intelligibility reached its high point in philosophy, he chose to study logic by studying the ideals of understanding implicit in the great philosophers. For his own part, the test of any theory was its power to maintain itself in the light of reflectively ordered experience as a whole, and hence he would not have regarded his classical learning, his studies in German literature, or even his virtuosity on the violin (he was a nephew of the great violinist of the same name) as wholly alien to his thought. He belonged to the tradition in which philosophy, if not identical with wisdom, at least carried it as a corollary.

Yet for all one's admiration of Joachim's acuteness and learning, one cannot read this book without impatience. He had a strong position, but he defended it with a miscalculated strategy. His logic was of course that of the concrete universal, a logic that in spite of its bad start in the muddy morasses of Hegel, had been restated more intelligibly by Bosanquet, and put so tellingly by Bradley as to have swept most English philosophers off their feet. When Joachim assumed his chair at the close of the first world war, the problem was not to state the position over again, but to safeguard it fore and aft, to meet new types of criticism, and to show its relevance to the thought of the time. From which quarter was this sort of logic most exposed to attack? J. H. Muirhead saw the answer. 'The

most difficult and for the moment at least the most pressing of the problems that face idealistic philosophy' he wrote, 'is concerned with the co-ordination of its leading conceptions with the new ideas of physical science.' Planck and Einstein had already published their theories of the quantum and relativity and relaid the foundations of physics; in 1910 appeared Vol. I of Russell and Whitehead, which relaid the foundations of mathematics; by 1930 Schlick and Carnap, Wittgenstein, Ogden and Richards, Jeans and Eddington, Bridgman, Tarski, and Broad, had all written books on the philosophy and logic most appropriate to the new science. The logic they proposed was continuous with mathematics; it rejected flatly the idea of the concrete universal; and it claimed not only to be in accord with the new science, but to be demanded by it. The physical world that was emerging was something new, strange, and exciting, and was soon being talked about by students and even by general readers everywhere. It was of no use to ignore its mysterious entities as hypothetical only. They were real enough, and the methods of exploiting them practical enough, to generate atom bombs a few years later.

If, in the face of this rising tide, a logical theory was to be defended, what was the most promising line? Surely it was to take the new science and the new analysis in earnest. It was to elaborate a philosophy and logic of science that would take due account of the altered architecture of the physical world. It was to bring out clearly the utility and also the superficiality of the new semanticism, to admit the many advantages, and point out the grave philosophic limitations, of symbolic logic, to show how philosophical and mathematical thinking were really related, to carry the war into the enemy's camp by dealing with the new analysts on their own ground. This was not an impossibility; their case had large holes in it; and there were colleagues of Joachim at Oxford who might have done the necessary work, Cook Wilson and Prichard for example. Unfortunately Wilson died in 1915, and Prichard, on his election to the chair of moral philosophy, turned his attention elsewhere. Some suggestion of what might have been done was given by Joseph when he wrote three critical articles on

'logistics' in Mind in 1932-33; this critique has never been adequately met. Joseph also gave a course of lectures on the philosophy of Russell which are apparently soon to be published. Joachim too in the course of the present lectures offered a brief criticism of one of Russell's views about propositions. But it was not nearly enough. Through these critical years he was for the most part silent about the new developments.

Magnificently equipped as he was as a student of logical history, he lacked the intellectual tools that were needed for the task of the hour. One picks up his book eager to know what so keen a logician will say about the conviction that even then was beginning to invade the theory of inference, that all necessary assertion is tautologous, but though this theory, if true, would wreck his position, Joachim nowhere directly discusses it. One wants to know what so distinguished an idealist would do with the physicists' conviction that their statements somehow correspond to the behavior of protons and electrons, which never do and never can enter into anyone's experience. And to be sure, Joachim gives the correspondence theory a characteristically careful statement. But one's spirits sink when, after asserting that it will not do, he goes on, 'I will try to support this assertion by a brief consideration of Aristotle's account of apophansis' which he proceeds to embellish with a report of its earlier adumbration in the *Sophist* and the *Theaetetus*, a mention of its appearance in the *De Interpretatione*, the *Categories*, the *De Anima*, the *Posterior Analytics*, and the *Metaphysics*, and a rejection of 'Maier's proposal' to interpret the text of the *De Interpretatione* in such a way that this could plausibly have succeeded the *De Anima* in time. I am not finding fault with the argument actually offered, and my admiration of Joachim's superb scholarship remains firm. I am pointing out, not in reproach but in regret, that this strategy was bound to fail. For while he was gently and earnestly pleading the case for his high philosophy on the Isis, the Scythians were forming their ranks on the Cam; and a decade later they were pouring with their rude cries through a dozen breaches in the Oxford walls.

It is idle to speculate on what might have been. What is the logic that Joachim stands for ? In outline it is as follows: Logic

is the science which studies the structure of knowledge or truth. To say that it studies the laws of thought rather than of things, or of things rather than of thought, is pointless; Joachim is as confident as Bradley and McTaggart, though he does not argue the matter out, that the objects we sense or conceive, and the relations we grasp through thinking, exist only in experience. The test whether we are engaged in a knowing activity is whether anything in our experience can be true or false. And the first appearance of truth or falsity is in judgment. What is judgment ? Tradition tells us that it is the ascribing of a logical predicate to a logical subject, of snub-nosedness, for example to Socrates. Joachim insists that it is far more. Socrates is not the ultimate subject of our judgment, nor snub-nosedness the ultimate predicate; the predicate we are really asserting is Socrates-as-snubnosed, i.e., the old subject and predicate together; and what we are ascribing it to is the nature of things, or as Bradley would say, reality. Here any critical reader will want two questions answered. First, what is the relation of subject and predicate within the content ascribed ? Secondly, how is this joint content related to the real world ?

Joachim's answers to these questions carry him far from formal logic. To the first question he answers that subject and predicate cannot be revealed by analysis at all, if analysis means what it commonly does. What it commonly means is the taking of a whole apart as you might take a table apart. When you have the top and legs scattered about you, you can put them together again; and you assume that the pieces in isolation are exactly the same as they were in their union. Thought does not work that way. What you get when you take the components of judgment apart is *not* what they were when together. Socrates minus the nose is not the Socrates we are talking about, nor is the snub-nosedness we ascribe to him identical with what we should ascribe under the same name to Pitt or to Molly Malone. Strictly speaking, the two parts of a judgment are not parts at all; Joachim calls them 'moments'; they can be seen as they are only when seen in union. Thus the only analysis that applies to thought is one that preserves its synthesis.

Now what holds of each moment of judgment holds also of the judgment itself when placed in a wider context. Every judgment has grounds; every judgment has implications; the two cannot be sharply distinguished. Every judgment is therefore itself a moment which, as it achieves a larger setting, suffers internal change. To judge is to think, and thought in its very essence is an attempt at the expansion of knowledge. This expansion, however, is a not mere widening of the circumference, like a circle widening in water, for it involves an accompanying change of all the elements within it. To be sure, such change is not total transfiguration. To say that there is no identity at all between the components of a thought system as they stand outside and inside the whole would clearly be going too far. Expanding knowledge will alter, but it will not simply obliterate our present conceptions and insights. What we must rather believe is that in the full and ordered understanding which is at once the aim and the spring of all our thinking, no present insight, however tentative, would be simply 'cast as rubbish to the void', though it must equally be admitted that none of them would pass quite unrevised. Thus every judgment is true in degree. It is likewise false in degree.

To the question, then, how subject and predicate are related in judgment, Joachim answers that they are interdependent moments in a whole, and that they and their relations are in process of continual change as their whole expands. Now what is his answer to the second question we noted, the question how the content of our knowledge is related to the reality that is its ultimate subject ? He admits that it is tempting to think of the physical world after the manner of Locke and Aristotle as a great order looming outside us, which our ideas reflect. Truth then would be correspondence, and with good luck such correspondence between some piece of the original and its copy might be complete. Joachim will have none of this theory. He holds with Berkeley that an idea can be like nothing but an idea. The external world is of the same stuff that enters into experience; and if so, its parts are similarly moments in a whole. But this whole is not incomplete, like our partial glimpses of it. Our world is at best *a* world; *the* world is the whole of things. What then is the relation between the little

circle of our knowledge and this absolute whole? It is one of partial embodiment. The thinker who sees that $(a + b)^2 = a^2 + 2ab + b^2$ is not copying an original, but seeing the original directly; one feature of the nature of things is presenting itself in person in his experience.

But then where does error come in? Is not this doctrine of the real presence of the object merely a throw-back to the new realism, which notoriously came to grief over just this issue of error? No, the two theories differ widely. New realists said that mirages existed out there, exactly as perceived. Joachim says that nothing exists in reality as we perceive it or even think it, because we never see it in its full setting of relations, and these are essential to its being what it is. Such a theory not only allows for error; it accepts it as an epidemic infecting all our thinking. Of course one may press Joachim here. One may ask why in his rational world, intelligible through and through, any error should ever appear. Why should the absolute have appearances at all? *Cur deus homo*? He admits that he has no answer, but points out fairly enough that this is not the sort of question which, if his theory is true, he is called upon to answer. Such questions could be answered only if we ourselves were the absolute. And we are not.

Grant this view that our ideas may supply a direct, though imperfect, revelation of the real, and thought achieves some dignity. If thinking is what the naturalists say it is, a set of brain efflorescences whose succession is wholly determined by physico-chemical laws, it is hard to see how anyone ever 'reasons' at all. On Joachim's view, thought may really follow the argument, may really respond to logical necessity, since it may be laid under the constraint of an objective rational order. 'It is not true that an explicit judgment or inference is nothing but the activity of a finite intellect...; it is not true that "I" am its "only begetter", its spontaneous originator and complete controller. The "discursive process", of which I am conscious as (in one sense) "my own", is objective and impersonal, working in and controlling "my" mind. In the judgment or inference, which I "make", I am in the grip and under the governance, of a power (a *vis cognoscens*) immanent in, but transcending, and more fundamental than, "my" intellect and "its" function-

ing. When I am "thinking", in the fullest and most pregnant sense of the term, "the subject" — so it is commonly expressed — "has taken full possession of my mind"; "reality", or "the truth", itself is "shaping itself in my thought".' (Incidentally, this pregnant passage is characteristic of Joachim's style as well as his thought. His pages are sprinkled with quotation marks put there to warn his readers against ambiguities in ambush. Most of these seem to me needless impediments to the flow of the writing.)

Joachim was an extreme rationalist. But in an important respect his system was at odds with that of earlier rationalists. The Aristotelian and Cartesian traditions agreed that there were self-evident judgments, bits of knowledge that within their own small limits and without reference to anything beyond, supplied us with certain truth. Taking this sort of rationalism as the chief alternative to his own, Joachim devotes to it the central and longest section of his book, which he entitles "The Search for a Datum." This search, he points out, may be pursued on two levels, those of perception and of discursive thought. At three chief points on each of these levels, claims have been made that a secure datum has been found, a datum that may be accepted just as it stands and requires no correction from extended knowledge. On the perceptual level, the claim has been made for perception itself, for the sensuous element within it, and again for the judgment that I am now experiencing this sensuous element. On the discursive level, a similar claim has been made for such propositions as '$2 + 2 = 4$', for the 'laws of thought', and for a great variety of axioms. The main polemic of the book consists of an examination and rejection of these claims.

The first two claims give him little trouble. He takes for examination the perceiving of a lightning flash, and shows without difficulty that the perception varies enormously with the level of the perceiving mind and with differing beliefs and expectations; and since these latter are always corrigible, so are the perceptions into which they enter. Sense data are dealt with similarly. There is no good reason to say that the color or intensity, the shape or length, of the flash as we see it belongs to the thing in nature, for these data are known to

vary with the state of our eyes. The suggestion that all these data exist independently, just as sensed, and that a physical object could be defined as a family of them, he seems to think not worth considering, through Russell's statement of this theory had long been before the public. One would like to have had his comments on it.

Most philosophers would admit, however, that these first two claims have no high plausibility. A more serious challenge to Joachim's position is offered by the third. Granted, it may be said, that the flash as I perceive it and even the bluish color I see are no parts of the object in nature, still my judgment that I am now experiencing a bluish color is in a different case. It ascribes no color to anything; it is simply a report of what I am aware of; and I am surely in a position to speak about that. Regarding this, at any rate, I can say I know, and know with finality. Joachim's answer in principle is that to sense a shade of color is one thing; to apprehend it *as* blue, and as a color, and as something now sensed by me, is something else; and there is no reason to suppose that a datum that goes into the hopper of these imposed relations comes out exactly as it goes in. Now I am inclined here to agree. But there are obvious difficulties with the position that cry out for notice. Take for example Price's comment that on this theory 'if I know or believe that something has a certain nature, it follows that it cannot possibly have the nature that I know or believe it to have." How exactly would Joachim answer? What he is offering is the doctrine of internal relations applied to sense data; and what is surely wanted is a straightforward defense of it against such plain objections as the one just given. Unfortunately that is not what we get. We get instead an inconclusive discussion of the difficulties of introspection, a dissection of Descartes's *cogito*, an argument to show that only the individual is real, and a proof that subjective and objective are correlatives. These are not really irrelevant. And yet who on the other side would be touched by them? Plain questions demand plainer answers, and it was too late in the day to throw out to the pack that was already loud in pursuit such terms as 'subjective' and 'objective', or 'a self-awareness, self-given and given to itself.' They were too nebulous to give the pack pause

for an instant. Too many members of this school, particularly perhaps Caird, Bosanquet and Joachim, grow misty at the wrong moments. This is all the more exasperating if one happens to believe that in the main they were right.

Having dealt with the attempt to find a sure datum on the perceptual level, Joachim turns to the attempt to find it on the level of explicit thought. He takes first such propositions as '$2 + 2 = 4$' and 'the angles at the base of an isosceles triangle are equal to each other.' To the student familiar with arithmetic or Euclidean geometry these propositions raise no question; they seem to bear their guarantee on their face. But this self-evidence is illusory. These propositions can be proved; each has in fact been arrived at from something else; and each is so connected with the system of number or geometry as to stand or fall with it. When we now say that the proposition is self-evident, what we mean, or ought to mean, is not that its meaning or truth can stand by itself in the sense that it would still be what it is if its connections were cut, but merely that once its truth in these connections has been seen, we accept it at face value and take the background for granted.

Joachim goes on to show that even if one does take such judgments as self-evident, their self-evidence is not of the kind that Aristotle and Descartes supposed. They are already moments in a little system, not balls in a box. In the isosceles triangle, for example, it is not equal sides in the abstract and equal angles in the abstract that entail each other; it is these elements as specified and defined by their place in a definite figure. Once this figure has been constructed, one can see that its components are interdependent, but it is only within the whole that their relation can be seen. Take them out of this unity and try to force the pieces together, and you get what Bradley described as 'marriage without a *modus vivendi*.' So of all entailments. Study the nexus between the terms, not as embalmed in a logical show-case, but as presented in actual thinking, and you always see behind it this 'identity in difference', this 'concrete universal', this whole consisting of moments that take their very nature from the parts they play within it.

Joachim's case, I think, is here unanswerable. Further, it suggests how he would handle the current controversy as to

whether all necessary judgments are analytic. Joachim would no doubt admit that the judgment 'every red extent is extended' is an analytic proposition, but he would certainly go on to say that it is a sort of judgment no one ever makes. We never mean in thinking to repeat ourselves idly. We do, to be sure, make such judgments as 'whatever is red is extended' and 'whatever has shape has size', where we can see that the subject could not be what it is without carrying the predicate with it. But that is not tautology. It would be tautology only if what we meant by calling it red was one and the same thing, in whole or in part, as we meant by calling it extended, and the two meanings seem quite distinct. What we are asserting, Joachim would say, is that these two characters, though plainly different from each other, are yet moments within one whole, a whole in which the sides are in such intimate union that the color could not exist unless spread-outness went with it. He would thus admit that all necessary judgments are analytic. But they are analytic, not of the subject, but of the whole to which subject and predicate belong. Such judgments are also synthetic, since the predicate never vanishes into the subject. Such judgments, again, are not merely explications of our meaning; the assertion that what is red is extended is obviously meant to hold of the nature of things. In all these points Joachim seems to me right. The rather arid present controversy could do with some of his excellent sense.

Unfortunately when he goes on to deal with the two remaining types of self-evident proposition, the fog that haunts him at critical points descends again. The types in question are, on the one hand, what are sometimes called axioms, such as 'two straight lines cannot enclose a space' or 'every event has a cause', and, on the other, logical laws, such as the principle of non-contradiction. Both types are of extreme importance and demand a rigorous scrutiny. The view, so widely accepted now, that axioms are merely postulates had been vigorously espoused across the channel by Poincaré and in Oxford by Schiller, but Joachim does not notice it. The view that logical laws are conventions about the use of words had perhaps attained too little currency when the lectures were written to make its treatment seem imperative; in any case, it too remains

unnoticed. Joachim dismisses both types of proposition in a cryptic page or two which leave the whole discussion truncated. He was not the man to do this deliberately; we can only suppose that the lectures were curtailed by lack of time.

Logic today is in a chaotic state, and the system Joachim defended is in eclipse. One can hardly believe that it will remain there. For it supplies the best answer yet given to the question what sort of satisfaction we are seeking when we think. This is not the way in which the problem of logic is commonly conceived, but it remains a possible way, and it is far too interesting and important to be neglected permanently. Indeed the philosophical logicians were better empiricists than many of those who go by that name. They kept closer to the facts of thinking, and this not merely in the sense that they saw more accurately how we think, but in the sense that they understood far more clearly the end of thinking and the standards implicitly at work in it. Hegel, Lotze, and Sigwart, Green, Bradley and Bosanquet were competent logicians partly because first they were competent philosophers; they had confronted ultimate problems, and knew that if you were to solve them you must have more in your box of tools than mathematics and sense data. If an age of 'sophisters, economists, and calculators has succeeded', that proves little, unless indeed one accepts James's shallow dictum that prevalence measures validity. Still, the present eclipse of Joachim's logic has its lesson. Philosophies, like other things, must make adjustments to their time if they would survive; new wars, new weapons. Present-day analysts can flourish on a fraction of Joachim's armory, and they are probably far too pre-occupied with one another's latest pamphlets even to think of giving him a reading. That is their loss. But the responsibility is partly his own. Scholarship, exactness, scrupulousness, expository skill, thoroughness — all these he had, and some of them in abundance. If only he had had a corresponding skill in reading the signs of the times!

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Books Received

(Listing does not preclude a subsequent review).

Harold Joachim, *Logical Studies;* Oxford, Clarendon Press, 1948, 296 pp.

George Perrigo Conger, *Epitomization* A study in Philosophy of the Sciences; mimeographed; Minneapolis. University of Minnesota Library; 1949; 878 pp.

Daniel Day Williams, *God's Grace and Man's Hope;* N.Y., Harper & Bros. 215 pp.

Constantine Cavarnos, *A dialogue between Bergson, Aristotle and Philologos,* Cambridge, Mass. privately printed, 1949, 60 pp.

Thomas J. Higgins, *Man as Man*: the Science and Art of Ethics. Milwaukee, Bruce Pub. Co. 1949; 607 pp.

Richard P. McKeon. *The Philosophy of Aristotle*. Chicago. mimeographed, 1949, 102 pp.

Roy J. Defferrari, Sr. M. Inviolata Barry: *A Lexicon of St. Thomas Aquinas,* Fascicle 1, a-c. Baltimore. Catholic University Press. 1948. pp. 262

W. H. Werkmeister. *A History of Philosophical Ideas in America*. N.Y., Ronald Press, 1949, 599 pp.

Francis O.Rice and Edward Teller: *The Structure of Matter*. N.Y., John Wiley & Sons. 1949. 361 pp.

David F. Swenson. *The Faith of a Kierkgaardian Scholar*. Philadelphia. Westminster Press. 159 pp.

John Laird. *On Human Freedom*. London, Allen & Unwin, 1949, pp. 152.

Herman Weyl. *Philosophy of Mathematics and Natural Science*. Princeton. Princeton University Press. 1949. 311 pp.

Carl B. Bayer. *Concept of the Calculus*. N.Y., Hafner Pub. Co. 2d printing. 1949, 346 pp.

Anton C. Pegis. *The Wisdom of Catholicism*. N.Y. Random House, 1949, 988 pp.

J. E. Raven. *Pythagoreans and Eleatics*. Cambridge. Cambridge Univ. Press. 1949. 196 pp.

Plato's Seventh and Eighth Letters, edited with introduction and notes by R.S. Black. Cambridge, Cambridge Univ. Press. 1949, 188 pp.

John Bowle. *Western Political Thought*. N.Y. Oxford Univ. Press, 1949, 472 pp.

Sir Arthur Keith. *A New Theory of Human Evolution*. N.Y. Philosophical Library. 1949, 451 pp.

Étienne Gilson: *Being and Some Philosophers*. Toronto. Pontifical Institute of Medieval Studies. 1949. 219 pp.

André Darbon. *La Philosophie des Mathématiques*. Paris. Presses Universitaires de France. 1949, 203 pp.

Alain. *Propos sur L'esthétique*. Paris. Presses Universitaires de France. 1949, 118 pp.

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T. H. Croxall. *Kierkegaard Studies*. London. Lutterworth Press, 1949, 227 pp.

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Volumen Medicinæ Paramirum of Theophrastus von Hohenheim called Paracelsus. translated with preface by Kurt F. Leidecker, Supplement of the Bulletin of History of Medicine, Baltimore, Johns Hopkins Press, 1949. 69 pp.

R. W. Sellars, V. J. McGill and Marvin Farber. *Philosophy for the Future*. N.Y. MacMillan 1949. 657 pp.

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The Family: Its Function and Destiny: Science of Culture Series Planned and edited by Ruth Nanda Anshen. N.Y. Harper & Bros. 443 pp.

Les Méthodes de la Connaissance. Archives de l'Institut international. Series A. Problèmes de Philosophie des Sciences. I. Paris Herman et Cie 1948, 69 pp.

José Sánchez Villaseñar, S.J. *Ortega y Gasset. Existentialist*. tr. by Joseph Small. Chicago. Henry Regnery Co. 1949. 264 pp.

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